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"FOR MANNERS ARE NOT IDLE"

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NOW in this time when all that is human tends to be regarded as something reprehensible, I, myself an erring mortal, have the temerity to come before you, an association of physicians, and to offer you, of all things, a panacea. Nevertheless, bear with me if you can, for what I hold forth is not a nostrum. It is nothing, in truth, so satisfyingly concrete as that. It is rather an abstraction, a matter of behavior, which, when sterling, has its source in the character of a man and only when counterfeit is buttered upon him.

Yet, out of my sadly incomplete knowledge of how the centuries have molded the convictions of men, I venture to say that down through the ages, this trait, this quality which I have in mind, has been accorded its place of importance. Otherwise, springing from the so-called Wisdom Movement of the Near East, there might not have been preserved in the Biblical Book of Proverbs, that which reads, "A soft answer turneth away wrath." Later, comparatively recently in fact, since it was in Elizabethan times, Shakespeare put into the mouth of no less than the Lord Chamberlain Polonius, his precepts to his son. Moreover, whatever people in general may think of Lord Chesterfield, and whatever Samuel Johnson did not think of him, men of this age occupy no height from which to look down upon him. And who can say that his preoccupation with how a man should gracefully bear himself with relation to his fellows had nothing to do with the distinguished political service he gave to his country, including what most administrators have found impossible, conciliation of the factions in Ireland? Again, Cardinal Newman, the author of "Lead, Kindly Light," whose life was almost coextensive with the nineteenth century, saw fit in his discourses "The Idea of a University" to introduce two well-known paragraphs with the sentence, "Hence it is that it is almost a definition of a gentleman to say he never inflicts pain."* And to come down to the present time, that century which was borne in on so high a tide of hope but wherein, man is now struggling for existence in a whirlpool of degradation: can it not be asked whether in this time hope could have been renewed if present political opponents of the United States had read or, having read had retained, a memory of the works of this great man?

Therefore I, in my imperfect attempt to follow after the great men whose thoughts I have just cited, ask your leave to consider, for a few moments, how we physicians, in the various roles we must assume in this modern day, perhaps can perform our tasks with greater ease and effectiveness than otherwise we could if, in a world which seems no longer to value consideration for others, we insist on conducting our affairs with good manners, with courtesy, with decorum.

Never in the history of our organization have those within it, and those outside it, needed the organization more. The association maintains its effectiveness. Yet these are times of stress. Stress

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From the Mayo Clinic, Rochester, Minnesota.

*Newman, John Henry: The Idea of a University, Discourse VIII.

engenders fatigue and fatigue, impatience. Out of impatience come altercation, enmity and the search, in unlikely places, for solutions of problems. Perhaps these are reasons why we physicians find great obstacles in our path as we set ourselves to the task of maintaining the standards of our work, or of elevating them. The nature of these obstacles is familiar to everyone here. Suffice it to say, there are modern institutions and organizations, and even large segments of our population whose interests we seek to defend, who face with skepticism and even with antagonism the proposals which we offer as solutions of perplexing problems.

Yet I believe that the people of the world not only are tired of struggle against hunger, illness and an uncertain future but that they also are tired of strife. If this is so, it is particularly desirable now for our association to function with harmony among its members as well as in its environment. To this end the physician must consciously deal gently with his colleagues and he must exercise extreme caution as he proceeds with plans for the benefit of those among whom he dwells. Very easily he can offend without intention. Among those who work for a living he is accorded, whether he wishes it or not, a slightly superior position. This he may accept but the assumption of a superior manner on his part will not be condoned, particularly by those of his neighbors whose knowledge of sociology and economics may be better than his. He will need constantly to employ his insight into human nature to get the other's point of view. From this exercise of his faculties, he will derive the habit of tolerance.

Certainly the physician will converse with many enlightened and competent individuals. Often they will entertain notions concerning medicine and the distribution of medical care which they will advocate with confidence and support with arguments which are satisfactory to themselves. Many times, to the physician, with his special knowledge of his own field, these arguments may seem worthy of contempt but he must not reject them with a contemptuous air. He must try to assume the objective position of an impartial inquirer and to seek some means whereby he may determine why, or even whether, his opponent is wrong.

Concerning some questions, the further he searches, the more he may become convinced that no answer is at hand and that some questions, if they do not transcend the limits of human understanding, may at least transcend its present resources. He cannot afford to permit himself to be discouraged by such experiences. He must be willing to take the time and to make the effort to clarify matters for others or to explain, fully and courteously, that knowledge which would allow him to answer the question under consideration is not as yet available.

Such an approach discourages strife and encourages amicable discussion. It is through discussion that experience is analyzed and eventually, we hope, correctly interpreted. I said "eventually" because often the correct interpretation is considerably delayed while men in a free society experiment and discuss. This freedom to try and to think and to express ourselves, probably most of us consider among our greatest strengths and greatest blessings. This freedom, which allows us to take our time, may render us a little tardy. Nevertheless it allows us to live up to the precept, "First of all, do no harm."

Now, if the foregoing advantages lead most physicians to the conviction that private enterprise brings the greatest good to the greatest number, well and good. Nevertheless, if there is a dissenter among us who believes that our concern for the public interest should lead us to accept a greater measure of public control, is he less our brother?

Surely there is one community enterprise which we can afford to strengthen, to revive or to inaugurate, depending on our belief as to the state which existed formerly. I refer to a more or less generally recognized moral standard which, it seems to me, used to have more force than it has now in guiding individual and corporate conduct.

It may seem that to treat of morals as a subtopic under good manners is to interchange the small for the great. But it is the fact that the two are related, not the order in which they are considered, which is important. Tennyson, who had considerable influence in forming our Anglo-American culture, expressed the relationship in words of which I took a part as the title of this address. He wrote,

> "For manners are not idle but the fruit
> Of loyal nature and of noble mind."

This is an age of science; an age of dangerous science; an age when science is about to outstrip all other activities. It is important to realize that science, unrestrained by moral precepts, can destroy man and all that he possesses and inhabits. Man must learn to live with man and he must know how to conduct himself in the presence of his own capacity for destruction.

It should be possible to evolve a system or a manner of living which, when guided by conscience and principles of ordinary decency, might be capable of developing proper human relationships. I insist that this can be done, given the proper human behavior. In each and every human being, if the soul has been lost, the soul must be re-created. A community soul must be reborn; a national conscience; a native American morality. These must be displayed to the world. At the same time, all must be prepared, with good grace, to accept change in all values, even these.

Knowledge is the product of great labor and great sacrifice but it is the advance of ideas by which progress ultimately is determined. Progress itself depends on change. Consequently, it is probable that in the march of ages many different creeds, apparently good creeds, which now exist, are destined to die out and to be succeeded by some which are better. The world has witnessed the beginning of some of them and there is no assurance that it will not see their end. All values which are essential to human progress must sustain the shock and the vicissitudes of time.

Moreover, if man adopted only the opinions of his forebears and contemporaries, he would create nothing new. The result would be an evident decay of that vigor of character and that audacity of conception and execution which paves the way to achievement. Our duty as physicians is clear. We shall freshen the fabric of our knowledge. We shall color anew its various parts and harmonize its apparent discrepancies. We shall employ every resource which we possess in an effort to determine what is best for all and, having arrived at a sound conclusion, we shall uphold it zealously, being assured that if it is true, ultimately it will prevail. In addition, we shall urge it with courtesy that it may more likely be adopted with willingness. Perhaps tolerance, maintained in an atmosphere of righteousness, persisting through change, may develop into esteem and that, in turn, may broaden into something resembling affection for our fellow men.

The safest and most impregnable ground on which social advancement can be founded is the universality of the affections. It is the bond of our common humanity; it is the golden link which joins together and preserves the human species. It is in the acts prompted by these affections that the existence of the highest instincts of our nature is revealed. Affection can warm the coldest temperament and soften the hardest heart. Regardless of how greatly the character of an individual may be deteriorated and debased, this spirit is capable of redeeming it. It is a godlike attribute.

The affections even transcend death and we feel, in the presence of death, that something remains—something which possibly the eye of reason cannot discern but which the eye of affection perceives. If this be a delusion, it is one which the affections themselves have created and we are forced to believe that the noblest and purest elements of our nature conspire to deceive us. Of all the moral sentiments which adorn and elevate the human character, the instinct of affection is one of the most vibrant and profound. It is the choicest of our possessions and bears upon itself the impression of truth. It is at once the condition and the consequence of our being. It flourishes best in an atmosphere of consideration and courtesy.

In fact, there are few fields of human endeavor wherein attention given to the feelings of others can be neglected safely. This applies even in the realm of practical politics, wherein we physicians have much to learn. We have been censured and justly so, for our failure to enter into community, state and national life. We have felt that for us to enter politics was scarcely consonant with the principles of medical ethics. We have looked with lack of esteem on many whose activities have been confined to political life and we would have to use stronger language to give our estimate of the lobbyist. Now it is necessary, however, that we alter our opinion concerning these matters.

I do not believe that human progress is chiefly owing to the wisdom of governments. Those who control government often are the creatures of the age in which they live and are not its creators. Often their accomplishments are the result of

social progress and not the cause of it. Many times such men are the accidental and insufficient representatives of the spirit of their time. They may discern fallacies and may point out means to protect by presuming to raise themselves into positions as supreme judges of national interests. Great political reform or improvement often is not originated by such individuals but by bold and capable thinkers who are outside the governmental establishment. Persons of the latter type may discern fallacies and may point out means by which they can be remedied.

Thus, it is no longer advisable for the physician to confine his activities to the care of the infirm. Much of the progress which he may effect will depend on governmental action, energized not by others, but by himself. It is imperative now that the physician, with befitting dignity, assume his proper place beside those who determine the destiny of nations. We have a venerable precedent in the life of Dr. Benjamin Rush, signer of the Declaration of Independence. Since his time, a number of physicians have served effectively in political capacities.

If, in what I have said, my central thought has ever seemed too tenuous, perhaps I can bind all together by stating my basic conviction. I agree with that philosophy which holds that mankind is more virtuous than vicious and that good acts are of more frequent occurrence than bad acts. We know that cruelty is counteracted by benevolence. We know that sympathy is excited by suffering. We know that the injustice of some provokes the charity of others and we know that new evils are met by new remedies.

Accordingly, outstanding qualities of estimable men are these: gentleness and courage, boldness and prudence, tolerance, reverence, confidence, stability, humility, wisdom, patience and honesty. I believe not only that possession of these qualities engenders good manners but that the exercise of good manners furnishes proper soil for the cultivation of these qualities. The two elements working together, not alone, I believe, would do much to allay those twin dreads of the world today: fear and want.

Finally, we, in our profession, have been reared well. The code of ethics of our organization provides that "a physician shall be an upright man, instructed in the art of healing." Furthermore, he "must keep himself pure in character and conform to a high standard of morals and must be diligent and conscientious in his studies . . . conducting himself with propriety in his profession and in all actions of life." Perhaps no other group is in a more favorable position to exemplify the union of good manners and good faith.

CANCER APPROPRIATIONS

With the passage by Congress of legislation more than tripling appropriations for research and control of cancer, and bringing next year's budget of the National Cancer Institute in Bethesda, Md., to the all-time high of $14,000,000, the U. S. Public Health Service announces plans for an expanded attack on the cancer problem that will place cancer in the forefront of the Government's medical research and control programs.

Under the broad authority provided in Public Health Service Law and the Appropriation Act, support may now be extended to universities to assist them in developing greatly expanded cancer research and training programs. The law also supports the acquisition of land and construction of buildings when urgently needed. Evidence of the over-all desire on the part of the Congress and the President to provide continuity in cancer research is shown in a provision of the Act, under which funds for cancer research and training grants remain available until spent.

Already the National Advisory Cancer Council of the Institute has recommended greatly increased grants-in-aid to outside institutions engaged in experiments to find the cause and cure of cancer. With the passage of the Appropriations Act a total of forty-six project grants, involving the expenditure of $594,348, was made to widely scattered groups. In all, thirty-five institutions in twenty-three states are recipients. At the same time the Institute is greatly expanding its own research program at Bethesda, where there will be increased emphasis on clinical research.

Four million dollars of the increase in NCI's budget will go—not to research—but to cancer control, the program administered through the States to increase the effective use of present methods of diagnosing and treating cancer. It is estimated that while a fourth of cancer patients are cured today, another fourth could be cured if they received early treatment.

The cancer control program will place emphasis on the improvement of cancer detection, diagnostic and treatment facilities; the development of refresher courses for doctors; the establishment of adequate statistical services on cancer; and the setting up of cancer control units in State Health Departments.

POSTGRADUATE MEDICAL EDUCATION IN A PRIVATE HOSPITAL

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Duluth, Minnesota

THE logical center for the continuation of medical education in a community is the hospital. There one can find an abundance of material and qualified teachers. National, state, and regional medical meetings, as well as short postgraduate training courses, should be considered indispensable adjuncts to the daily local teaching program. Furthermore, unless the hospital is the physician's most productive source of medical knowledge, then the doctor, his patients, and his community are missing something of inestimable importance. Determined steps can change a lethargic, procrastinating institution into a dynamic teaching center equivalent to that found in many medical schools. This goal has been reached in two private hospitals in this city of 100,000 population.

Any 200-bed or larger general hospital with a full-time clinical pathologist and roentgenologist has the basic essentials for the establishment and the continuous support of such a co-operative educational program. All that is necessary is the proper organization of: (1) the truly overwhelming amount of interesting subject matter in such an institution; and (2) the qualified, but frequently hidden, teaching talents of its medical staff.

The tried and proved teaching methods of medical schools are the key to success. Some of the basic rules include the following:

1. All departments and all staff members are expected to contribute their part to a well-rounded program.
2. Interns and residents present as much as 50 per cent of the teaching material.
3. Lectures, conferences, literature seminars, medical meetings, patients' chart reviews, demonstrations, et cetera, must be scheduled at least one month in advance.
4. Fixed weekly schedules are mandatory.
5. Someone who is intimately associated with the institution, its medical staff, and its patients, and who is willing to give whatever is necessary for success, must assume a leading role in arranging much of the program.
6. Participants must be notified three times: one month, one week, and one day in advance of their scheduled activity.
7. Insistence upon a thorough preparation and a good delivery is essential.
8. The material and methods of presentation must be varied and have a practical value.
9. As a rule, diagnostic and therapeutic problems should have been solved before presentation.
10. The limitation of teaching assignments to a few men is detrimental and is not to be tolerated.
11. The long range educational benefit to the participating physicians is the criterion for selection of subjects and speakers.
12. The frequent publication in medical journals of the material covered in the teaching program is highly desirable (Table I).

Adherence to these twelve rules results in a stimulation to greater effort, a spirited interest, a broader comprehension of medicine, and a warmer appreciation of one's colleagues.

The specific assignments of this hospital's educational program are arranged during the previous month to fit into an established weekly schedule (Table II). All staff members are sent the mimeographed monthly program (Table III) and are invited to all presentations, although certain items are primarily designed for interns and residents. On each of four days of the week, Tuesday through Friday, two one-hour medical subjects are scheduled. A third one-hour session in the form of a necropsy, with a co-ordinated study of the clinical aspects of the case, occurs on the average of almost every day of the week. These examinations are announced in advance by phone and on bulletin boards. On Tuesday (Table II) there is an 8:00 A.M. postgraduate medical conference (P.M.C.). In the afternoon the roentgenologist reviews selected films from the previous week's x-ray diagnostic problems (X-ray). On the first Tuesday of the month the Duluth Pediatric Society has its pediatric-pathologic conference (P.P.C.). A lecture (Lect.) is scheduled primarily for the interns and residents on Wednesday, and in the same evening they conduct an informal medical literature seminar (M.L.S.).

From the Department of Pathology, St. Luke's Hospital, Duluth, Minnesota.

TABLE I. PUBLICATIONS EMANATING FROM EDUCATIONAL PROGRAM

1944	1945	1946
1. Toxemia of Pregnancy with Uterine Exsanguination	1. Rh Tranfusion Reaction and Transfusion Reaction Instructions	1. Cancer Detection Centers and Allied Cancer Projects
2. Congenital Fibrocystic Disease of Pancreas	2. Epidermolysis Bullosa in a Newborn	2. Chronic Intradural Hematoma
3. Bilateral Cortical Necrosis of Kidneys	3. Congenital Anal Stenosis	3. Cancer Research—A Preface
4. Atheromatous Plaque of Renal Artery with Hypertension	4. Congenital Interauricular Septal Defect	4. Diptheria: A Report of Six Deaths
5. Bilateral Adrenal Hemorrhages with Waterhouse-Friderichsen Syndrome	5. Renal Rickets	5. Pulmonary Emphysema
6. Failure of Surgical Wound Healing Due to Talc	6. Parenteral Fluid Therapy	6. Hormonal Dyscrasias of the Breast
7. Actinomycosis of the Urinary Bladder Complicating Madura Foot	7. Punch Biopsy of the Liver	7. Periarteritis Nodosa
8. Malignant Hepatoma in an Infant	8. Chronic Peptic Ulcer of the Esophagus	8. Cancer Research
9. The Minnesota Coroner System	9. Congenital Atresia of the Biliary Tract	9. Normal Appendices in 1000 Appendectomies
10. Duodenal Obstruction by Superior Mesenteric Artery Pressure	10. Isolated Myocarditis, Probably of Sulfonamide Origin	10. Practical Application of New Developments in Blood Groups and Types
11. Volvulus in the Newborn	11. Cardiac Amyloidosis with Chronic Congestive Heart Failure in Multiple Myeloma	11. Blood Types in Pregnancy (Questions and Answers)
12. Acute Sulfonamide Myocarditis	12. The Nature of Cancer	12. Air Embolism
	13. Adrenal Hemorrhage of the Newborn	

TABLE II. BASIC WEEKLY SCHEDULE

	Tuesday		Wednesday		Thursday		Friday	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
First week	P.M.C.	P.P.C.	Lect.	M.L.S.	Lect.	St.M.S.	St.M.C.	M.Chart
Second week	P.M.C.	X-ray	Lect.	M.L.S.	Lect.	St.L.Co.	St.M.C.	S.Chart
Third week	P.M.C.	X-ray	Lect.	M.L.S.	Lect.	St.L.S.	St.M.C.	P.Chart
Fourth week	P.M.C.	X-ray	Lect.	M.L.S.	Lect.	D.S.S.	St.M.C.	O.Chart

Key: P.M.C.=Postgraduate Medical Conference. P.P.C.=Pediatric Pathologic Conference. Lect.=Lecture. M.L.S.=Medical Literature Review. St.M.S.=St. Mary's Hospital Monthly Staff Meeting. St.L.Co.=St. Louis County Monthly Meeting. St.L.S.=St. Luke's Hospital Monthly Staff Meeting. D.S.S.=Duluth Surgical Society Monthly Meeting. St.M.C.=St. Mary's Hospital Pathologic Conference. M.Chart=Medical Chart Review. S.Chart=Surgical Chart Review. P.Chart=Pediatric Chart Review. O.Chart=Obstetric Chart Review.

On Thursday there is a second weekly lecture. The regular monthly medical meetings occur on Thursday evenings, including those of the staffs of the two larger hospitals (St.M.S. and St.L.S.), the county medical society (St.L.C.) and the Duluth Surgical Society (D.S.S.). A second weekly postgraduate medical conference is conducted on Friday in the collaborating neighboring institution, St. Mary's Hospital (St.M.C.). On the same day the chiefs or assistants in the various departments of medicine (M.Chart), surgery (S.Chart), pediatrics (P.Chart), and obstetrics (O.Chart) conduct a review before the interns and residents of selected charts of patients discharged from the respective departments during the preceding thirty days.

The two weekly postgraduate medical conferences play a more important role in medical education of our physicians and interns than do the regular monthly medical meetings. They are conducted in a manner similar to that of the clinical pathologic conferences of other medical institutions, except that a much wider variety of subjects is covered. An attempt is made to include all practical aspects of the field of medicine, with frequent variations of the subject matter and method of presentation. The principal sources of material include the following: postmortem examinations, living patient case studies and demonstrations, out-of-town medical meetings, outstanding articles from the medical literature, recent advances in special fields, reviews of selected topics in the basic sciences or clinical medicine, clinical experimental studies, and collective case reviews. All serious diagnostic and therapeutic mistakes are routinely discussed with complete frankness. Even the pathologist admits his mistakes.

Approximately 100 lectures (Table IV) delivered by forty-five physicians are scheduled for delivery to the house staff during the year. These informal talks are designed to prepare the students for the practical application of medicine in general practice. The subjects have at times been selected with the talent of the teacher in mind. They may not cover the entire field of the general practitioner; however, upon the request of the

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TABLE III. POSTGRADUATE MEDICAL EDUCATIONAL PROGRAM

(Month of February, 1947. Fifty subjects, fifty-three participants)

February	
4. St. Luke's Postgraduate Medical Conference	
1. Heparin and Dicoumarol	Dr. R. H. Wasserburger*
2. Phlebothrombosis Case Study	Dr. E. C. Bagley Dr. R. H. Wasserburger*
3. Diagnostic Case Study	Dr. F. H. Dickinson, Jr. Dr. M. S. Munson*
Pediatric-Pathologic Conference	
1. Foreign Body in Bronchus	Dr. R. P. Buckley
2. A Diagnostic Study	Dr. E. E. Barrett
3. A Diagnostic Case Study	Dr. R. P. Buckley
4. A Monstrosity (demonstration)	Dr. H. A. Sincock
5. Injuries of Hand	Dr. G. C. MacRae
Medical Literature Review	Dr. L. F. Grams*
6. Medical Legal Topics	Mr. John Fee
St. Mary's Staff Meeting	
1. Presentation of Plaque Honoring Dr. Malcolm T. MacEachern	
2. Presentation of Scroll Honoring Dr. E. L. Tuohy	
3. Hospital and Nursing Falicities in Brazil	Sister Olivia, O.S.B.
7. St. Mary's Pathologic Conference	
1. Pathology of Stomach	
(1) Case Study	Dr. John Mayne* Dr. P. S. Rudie
(2) Case Study	Dr. R. D. Workman* Dr. M. G. Gillespie
2. Physiological Problems	Dr. E. L. Tuohy
Review of Medical Patient Charts	Dr. F. J. Hirschboeck
11. St. Luke's Postgraduate Medical Conference	
1. Toxemia of Pregnancy and Hypertension	Dr. E. Zupanc*
2. Acute Uremia and Peritoneal Irrigation (Case Report)	Dr. W. H. Pollard
3. Classification of Skin Tumors	Dr. M. G. Fredricks
X-ray Review	Dr. A. L. Abrahams
12. Prenatal Care	Dr. R. J. Eckman
Medical Literature Review	Dr. R. J. Goldish*
13. Abortions, Premature Labor, Hemorrhage	Dr. E. C. Bagley
St. Louis County Medical Society Meeting	
1. Treatment of Syphilis	Dr. F. T. Becker
2. Treatment of Gonorrhea	Dr. W. E. Hatch
3. Reiter's Disease	Dr. O. E. Sarff
14. St. Mary's Pathologic Conference	
1. Acute Abdominal Conditions	
(1) Case Study	Dr. Joseph Seitz* Dr. A. J. Spang Dr. W. V. Knoll
(2) Case Study	Dr. W. C. Martin Dr. A. J. Bianco
Review of Surgical Charts	Dr. P. S. Rudie
18. St. Luke's Postgraduate Medical Conference	
1. Dyspepsia, Ulcer, and Gastric Cancer	Dr. R. A. MacDonald*
2. Diagnostic Case Study	Dr. C. H. Mead Dr. H. M. St. Cyr*
X-ray Review	Dr. A. L. Abrahams
19. Hospital Literature Review	Dr. R. H. Wasserburger* Dr. H. M. St. Cyr*
20. The puerperium	Dr. J. R. Manley
St. Luke's Staff Meeting	
1. Report of Proceedings of American Academy of Orthopedic Surgeons	Dr. M. H. Tibbetts Dr. R. J. Dittrich Dr. S. S. Houkom
2. Oxygen Therapy	Dr. F. J. Jacobson
21. St. Mary's Pathologic Conference	
1. Acute Intestinal Obstruction	
(1) Case Study	Dr. John Bartness* Dr. G. C. MacRae
(2) Case Study	Dr. John Mayne* Dr. A. J. Bianco
2. Caloric Requirement of the Working Man	Dr. E. L. Tuohy
Review of Pediatrics Charts	Dr. R. E. Nutting
25. St. Luke's Postgraduate Medical Conference	
Obstetrics and Gynecology Conference	
1. Obstetrics and Gynecology Service Review	Dr. E. E. Hunner*
2. Identical Twins	Dr. R. J. Goldish*
3. Hormonal Therapy at Menopause	Dr. M. O. Wallace
X-ray Review	Dr. A. L. Abrahams
26. Pharmacology in Obstetrics	Dr. F. H. Magney
Medical Literature Review	Dr. J. P. Tetlie*
27. Operative Obstetrics—Forceps and Their Use	Dr. A. O. Swenson
Duluth Surgical Society Meeting	
1. Sarcoma of the Breast	Dr. W. A. Conventry
2. Pyometra	Dr. E. C. Bagley
3. Sarcoma of the Stomach	Dr. Clarence Jacobson
28. St. Mary's Pathologic Conference	
1. Ocular Tuberculosis	Dr. F. N. Knapp Dr. D. W. Wheeler
2. Case for Diagnosis	Dr. Joseph Seitz Dr. Henry Fisketti

*Interns and residents

interns or residents, any additional subjects are scheduled.

Other factors of importance in the postgraduate training of the hospital medical staff members are: (1) an informed and progressive hospital board of directors whose members constantly anticipate the rapid advances in medical science and appreciate fully the importance of continuous collaboration with the medical staff; (2) a community which has been educated over a long period by its physicians as to the value of postmortem examinations; (3) a flat rate fee for laboratory tests based upon the time spent in the hospital and not upon the amount of work performed, thus permitting the equivalent of medical school laboratory studies without financially burdening the patient; (4) the aid of a full-time medical anesthesiologist; (5) a medical library of adequate size; (6) a well-balanced, rotating internship; (7) properly supervised residencies; (8) a guarded minimum of laboratory, blood bank, and parenteral fluid routine duties for interns, with specially trained technicians and nurses performing the bulk of these tasks; (9) a maximum of 700 hospital admissions per intern per year; and ten of the greatest importance, a congenial medical staff alerted to the mutual benefit derived from a continuous effort at personally teaching and entertaining interns and collaborating with medical colleagues in all of the details of maintaining a high standard of medical practice in the community.

TABLE IV. HOUSE STAFF LECTURES

Practical Therapeutics (2)	Allergy
Medical Ethics and the Harrison Act	Medical Economics
Pharmacology in Obstetrics	Burns
Cardiac Diseases in Practice (2)	Neck Surgery
Orthopedic Apparatus and Application	Thyroid
Back Pain	Electrocardiogram (6)
Fractures (5)	Coma
Thoracic Surgery	Pulmonary Diseases
Management of Dystocia	Surgical Technique
The Puerperium	Pre- and Postoperative Care (2)
Eye Conditions and General Practitioner	Minor Surgery (2)
Otitis Media and Mastoiditis	Hernia
Bookkeeping, Collections, Taxes for Physicians	Feet
Anal and Rectal Diseases	Evaluation of Disability
General Practitioner's Bag	Cardiac Murmurs
Diabetes Mellitus (2)	Hypertensive Disease (2)
Peptic Ulcer	Arrhythmias
Colon Diseases	Pre- and Postnatal Care
Esophageal Diseases	Contraction of Pelvis
Dermatology for General Practitioner (2)	Uses of X-ray in Obstetrics
Office Gynecology	Tumors of the Hand
Version	Injuries of the Hand (2)
Brow, Face, etc., Presentations	Decidual and Placental Clinical Pathology
Caesarean Sections	Country Practice
Toxemias of Pregnancy	Medical Legal Topics
Feeding Infants	Chronic Alcoholism
Ciliary Action of Upper Respiratory Tract	Urogenital Diseases
Immunization	Abortions
Electroencephalography	Prenatal Care
The Newborn Infant	Biologic Hormones (2)
Neurologic Examination	Forceps and Their Use
Brain Tumor and Abscess	Breech Extraction
Spinal Fluid Examination	Manikin Exercises
Liver Function Tests	Caldwell-Malloy Films and Technique
Rh Factor	Analgesics and Premedication Before Delivery
Anemias	Anesthetics Used in Obstetrics
Pulmonary Tuberculosis	Physiotherapy
Psychoneuroses (2)	

The great majority of private hospitals of this country are deficient in their medical educational program. Inasmuch as this may be due to the lack of realization of its advantages and feasibility of attainment or a need of methods and rules of procedure, an ideal postgraduate teaching center for both private practitioners and resident physicians has been briefly described.

WATER-BORNE TULAREMIA

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THE clinical recognition of tularemia and the expanding reservoirs of infection for man among the warm-blooded animals have been reported more frequently. The clarification and recognition of clinical states of the disease, including the important pleuropulmonary manifestations, have resulted in an entity considerably enlarged from its original description[13] in 1911. With the evident specificity of streptomycin in its treatment the clinical cycle appears to have been completed.

The reported sources of infection for man, however, appear to be increasing. Francis[6] in 1937 noted over twenty animal and insect sources, although the cottontail rabbit, jack rabbit and snowshoe hare alone were implicated in over 90 per cent of human cases in the United States. Additional reports since that time have described transmission of the disease to man by the pheasant, grouse, horned owl, chicken hawk, beaver, raccoon, dog, fox, squirrel, and snapping turtle. Burroughs[4] in 1945, listed all known naturally infected vertebrates, including five bird species and twenty-three mammalia in the United States and six in Canada. The latter area included species of ground squirrels, mice, rabbits, and the gull. The evidence of the large animal reservoir of infection is impressive. Infection in man, in most instances, occurred through infected tick, flea or other insect bites, or direct contact with the tissues of infected animals. Transmission from animal to animal and from animal to man is known, but no instance of transmission from man to man has been reported.

Human infection through the handling of cold-blooded animals has been described as incurred in the skinning of a bull snake,[6] and Miller[11] described infection from the fin prick of a catfish caught in a small Kansas river, resulting in a small wound on the palm of the left hand, with onset of symptoms five days later. Rabbits with so-called "rabit fever" had been seen to fall into the river and drown and numerous rabbit carcasses were noted in the water. No other similar instances are noted in the literature, although infection from fish caught with infected rabbit meat as bait is reported. It is not assumed that reptiles or fish present reservoirs of infection, but rather are the inadvertent sources of trauma to the skin allowing entry of the organism from the contaminated body surfaces.

Water-borne infection, presumably from contamination with animals, dead or alive, has been recognized. About 1,000 cases of tularemia reported from Russia in 1928 resulted from the skinning of water rats for their pelts. Karpoff and Antonoff[9] in 1936 reported forty-three cases from Russia in natives who drank unboiled water from a brook thought to have been contaminated by water rats. The presence of the organisms in the water course was proved experimentally and bacteriologically, as 100 per cent of guinea pigs infected with the water died, and cultures of P. tularense were obtained from their organs. The stream was not stagnant, but it was noted to have been good flowing water of shallow depth.

Parker[12] reported tularemic infection in Montana streams and Jellison[8] subsequently reported infection in beaver in that state with coincidental contamination of stream water. The association of stream infection with epizootics occasionally observed in beavers was suggested. The dangers of infection from run-off water from rain and melting snow contaminated with animal carcasses and later stored in reservoirs for animal and human use are emphasized by Bow and Brown[3] as possible sources of water-borne tularemia in Western Canada.

A case of tularemia due to infection while cleaning fish, with successful treatment with streptomycin, is reported.

P. V., aged thirty-nine, white, male, caretaker of a tourist camp, and resident of a southern Minnesota town, was admitted on September 3, 1946. On August 27 the patient experienced the onset of malaise, slight nausea, fever and profuse perspiration, followed by shaking chills during the next two days. He was admitted to a local hospital on August 29 with continued symptoms and fever of 101-103° F. Atabrine, penicillin and several blood transfusions were given without benefit, and he was subsequently transferred to this hospital.

Examination revealed a well-developed and well-nourished white man, perspiring profusely and appear-

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ing acutely ill, with temperature of 100° F. Positive findings were confined to the left upper extremity. An irregular deep ulcer with fairly sharp edges and purulent, necrotic base was noted on the dorsal aspect of the left thumb overlying the interphalangeal joint, with moderate redness and slight edema of the immediately surrounding skin. On the dorsal aspect of distal phalanx, left little finger, was a small, rounded, crusted, healing ulceration. Moderate enlargement and tenderness of the left axillary nodes and a few slightly enlarged right axillary nodes were palpable.

Laboratory studies: Hemoglobin 17.7 Gms., red blood count 4,350,000, white blood count 6,400 with 50 per cent neutrophils, 45 per cent lymphocytes, 5 per cent monocytes. Urinalysis, blood Wassermann and repeated malaria smears were negative. Sedimentation rate (Westergren) 46 mm./hr. Admission chest radiograph was negative.

Careful questioning on many occasions failed to reveal any history of the handling of live or dead game or other animals. There was no history of tick bite. He never hunted, but did fish almost daily for carp and catfish in the Minnesota River. He recalled scratching the dorsum of the left thumb while cleaning fish sometime during a two-week period prior to onset of his illness, with the appearance of infection and ulceration with concomitant pain and enlargement of left axilliary nodes several days prior to August 27. A small infected, ulcerated area appeared on the left little finger at about the same time.

Agglutinations for B. abortus and typhoid-paratyphoid were negative on admission and remained negative. P. tularense agglutination on September 7 was 1:80, with cross agglutination of Proteus OX 19 to 1:160. Cultures from the ulcers on the left hand revealed hemolytic Staphylococcus aureus. Cultures of material from the ulcers and blood cultures on cystine media produced no growth.

Symptoms remained unchanged, with profuse perspiration as the most prominent complaint. Temperature became normal on September 5, then rose sharply to 103.8° F. on September 6, with a subsequent daily spiking fever of 101.4° to 104° F. Intramuscular penicillin, 40,000 units every three hours, was given from September 7 to 12 without response. The lesion on the left thumb healed rapidly after application of hot, moist compresses followed by 5 per cent sulfathiazole ointment, with gradual subsidence of axillary lymphadenopathy.

On September 8 a small patch of crepitant râles was heard at the left lung base and chest radiograph revealed a diffuse pneumonitis at the left base and to a lesser degree in the right upper lobe. Cold agglutinin titres were negative. Tularemia was considered the most likely diagnosis at this time and streptomycin was requested for therapy. P. tularense agglutination titre repeated on September 13 had risen to 1:2560.

Streptomycin therapy, 0.2 grams intramuscularly every three hours, was begun on September 13 and continued until September 20, the patient receiving a total of 9.9 grams. Subjective improvement with subsidence of the profuse diaphoresis was noted by the patient on the second day of treatment. Temperature became normal on September 17 and remained normal subsequently.

On September 22 there was an episode of severe pain in the left chest, exacerbated by respiration, relieved by strapping and sedation. Chest film revealed no extension of the pneumonitis, there were no abnormal physical findings and the temperature remained normal. The symptoms were attributed to pleuritis, and subsided slowly over a period of ten days. Electrocardiogram on September 23 was normal. No evidence of pleural effusion was noted at any time, and final chest radiograph on October 7 showed only minimal residuals of the pneumonic consolidations and complete resolution of all infiltrative lesions.

The highest titre of P. tularense agglutination on September 17 was 1:1280, on September 27, 1:640, and on October 5, 1:1280. Sedimentation rate on October 11 was 27 mm./hr. The white blood count ranged between 6000 and 9000, with moderate lymphocytosis.

At the time of discharge on October 15, 1946, the patient was ambulant, asymptomatic and without positive physical findings.

This case of tularemia, with cutaneous and pulmonary infection, responded rapidly and effectively to treatment with streptomycin. The mortality in pleuropulmonary tularemia has previously been reported[2] as from 30-60 per cent. Stuart and Pullen[14] reported 268 cases from the literature with a mortality of 39.9 per cent. Hunt[7] recently reported twelve cases treated with an average of 0.5 grams streptomycin daily with one death occurring in a case with cerebral manifestations. He recommends a therapeutic trial of the antibiotic for several days in cases of severe pneumonia of undetermined origin in areas of endemic tularemia, since waiting for confirmatory laboratory studies, in some cases, may endanger lives. Recommended dosage at the time our case was treated was higher than that now recommended by the National Research Council,[10] the present suggested dosage being 0.5 to 1.0 grams daily for five to seven days.

The resurgence of hunting and fishing following the recent war years, especially in the upper Midwest, suggests the possibility of increasing exposure and infection. The relatively wide variety of infected game birds and animals and the possibility of contamination of fishing waters should be adequately recognized. The ingestion of improperly sterilized water from such sources may also be of significance, as the oral portal of infection from water has been previously noted. Amoss and others[1,14] have also reported cases due to the ingestion of partially cooked rabbit meat.

Summary

A second case of tularemia incurred during the handling of fish, in which the source of infection was undoubtedly water borne, is presented, together with some comment on the possibilities of other human infection from this source.

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INFECTION OF THE NECK AFTER TONSILLECTOMY

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FORTUNATELY, infection of the neck after tonsillectomy is not a common occurrence among the large number of tonsillectomies performed. However, when such infection does occur it is dangerous and demands prompt, rational treatment.

Infections of the neck may be represented by cervical adenitis, cellulitis of the neck, infection of a fascial space, thrombophlebitis and septicemia or any combination of these conditions.

Etiology and Prophylaxis

Obviously infection of the neck after tonsillectomy results from invasion of one of the cervical structures by pathogenic bacteria. The avenue of entrance of such bacteria into the neck cannot be determined definitely. Certain conditions already present in the patient's throat and trauma incident to surgery may predispose to postoperative infection. The presence of an active infection of the throat or a common cold may predispose to infection of the neck after tonsillectomy. Injury to the superior constrictor muscle, which lies between the tonsil and the pharyngomaxillary space, conceivably may predispose to infection of this space. Undue trauma incident to performance of tonsillectomy, especially that caused by dissection of the lower pole of the tonsil from its rather firm attachment to the superior constrictor muscle, may produce an avenue of infection to the pharyngomaxillary space.

In introducing a local anesthetic agent great care should be employed to direct the needle properly, especially in the region of the lower pole of the tonsil, wherein deep insertion of the needle might readily cause penetration of the superior constrictor muscle. At the lower pole, the needle should be directed into the plica in a direction horizontal to the palatoglossal muscle in order to avoid penetration of the superior constrictor muscle. All injections about the tonsil should be made into the plane which lies between the tonsillar capsule and the aponeurosis of the superior constrictor muscle; the needle should be felt to move freely in this plane. The use of unsterile equipment in administration of injections obviously may lead to infection of the neck.

Occasionally the styloid process produces a convexity or "tenting effect" in the otherwise concave tonsillar fossa; if this condition is not recognized, undue trauma to the tonsillar fossa may result from operation. Obviously, if careful dissection is done, injury to the tonsillar fossa should not occur.

From a bacteriologic standpoint, the virulence of the invading organism is undoubtedly of great importance. In 1939 New and Erich[2] reviewed the articles which had appeared in English during the previous five years on the subject of infections of the neck. In summarizing the results of the bacteriologic studies that had been recorded these authors made the following statement: "It would appear that many types and strains of organisms will produce cervical abscess or cellulitis under favorable conditions. Most frequently encountered in such suppurative conditions is the hemolytic streptococcus. In many cases the Borrelia vincentii plays a prominent role. Only infrequently are such organisms as staphylococci, non-hemolytic streptococci, and pneumococci the primary cause of the inflammatory process, although they occur commonly in the mixed type of infections."

Such diseases as diabetes, chronic nephritis or other severe constitutional diseases, although they may not actually predispose to infection of the neck, certainly make the patient less resistant once infection has developed.

Anatomic Considerations

From a pathologic standpoint knowledge of the anatomy of the neck, especially that of the fascial planes, is important. It is especially important that every practitioner of otolaryngology be familiar with the pharyngomaxillary space, which lies very near the tonsil. To understand better the importance of this space one must be familiar with the anatomy of the deep cervical fascia. This fascia lies beneath the platysma muscle and invests the neck. It also forms sheaths for the carotid vessels and for structures in front of the vertebral

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column. The investing layer of deep cervical fascia is attached posteriorly to the ligamentum nuchae and to the spinous process of the seventh cervical vertebra. As it passes around the neck, the fascia invests the trapezius and sternocleidomastoid muscles. In the posterior triangle of the neck the fascia is a rather loose areolar tissue, while in the anterior triangle it forms a single fascial lamella which continues anteriorly to the midline to join with its fellow of the opposite side. In the midline of the neck anteriorly the fascia is attached to the hyoid bone and the symphysis mandibulae.

Above, the fascia is attached to the superior nuchal line, to the mastoid process and to the inferior border of the mandible throughout its length. It ensheathes the parotid gland and extends upward to attach to the zygomatic arch. The part that passes medial to the parotid forms a strong band known as the stylomandibular ligament.

Below, the fascia is attached to the acromion, the clavicle and the manubrium. Above the manubrium it splits into two layers to form the suprasternal space (Burns' space).

The fascia which covers the deep surface of the sternocleidomastoid muscle gives off several processes which form the sheath of the omohyoid muscle, the carotid sheath and the prevertebral, buccopharyngeal and pretracheal layers of fascia.

The prevertebral fascia is fixed to the skull above and continues into the thorax below. The buccopharyngeal fascia ensheathes the constrictor muscles of the pharynx and is carried superiorly onto the buccinator muscle; it is separated from the prevertebral fascia by loose areolar tissue to form a space known as the retropharyngeal space.

The pretracheal fascia ensheathes the thyroid gland. It is fixed above to the hyoid bone and is extended below beyond the root of the neck to fuse with the pericardium. It also fuses on either side with the prevertebral fascia to form a compartment for the thyroid gland, trachea, larynx, pharynx and esophagus.

It should be understood that the pharyngomaxillary space in the normal neck is merely a potential space and that only as a result of the formation of an abscess within it or of the introduction of the dissector's finger or instrument into it does this potential space become an actual space or compartment.

The pharyngomaxillary space is pyramidal in shape; its base is the skull and its apex is at the greater cornu of the hyoid bone. The lateral boundary consists of the parotid space and fascia. The internal pterygoid muscle and the ascending ramus of the mandible form the anterior boundary. The superior constrictor muscle separates the pharyngomaxillary space from the tonsil and provides the medial boundary of this space. Posteriorly the space is bounded by the stylopharyngeal aponeurosis which covers the great vessels of the neck.

Signs and Symptoms

Deep infections of the neck frequently have an insidious onset, although those which follow tonsillectomy may have a rapid onset. The temperature rises daily to peaks, then may level off and gradually fall. Chills and sweats commonly occur. Various degrees of toxemia may exist. Dysphagia and dyspnea may be present. The patient complains of pain in the throat and neck. At examination, some evidence of tenderness can be elicited. In infections of the pharyngomaxillary space trismus, swelling in the region of the parotid gland and displacement of the tonsillar fossa and the palate occur. The patient who has infection of the pharyngomaxillary space should be observed closely for symptoms and signs of phlebitis.

Treatment

There are two schools of thought in respect to treatment of deep infections of the neck: those of one school favor early opening of the lesion, while those of the other favor the relatively conservative practice of waiting for appearance of signs of fluctuation or of localization of the infection before institution of drainage. Use of hot packs and irradiation may prove beneficial. The sulfonamide drugs and penicillin are valuable in combating infections caused by organisms which are sensitive to the action of these therapeutic agents. General supportive measures should be instituted. If dysphagia is severe a feeding tube should be inserted. Should involvement of certain structures cause dyspnea, tracheotomy should be performed. The value of blood transfusions should not be forgotten.

Incision for opening an infected pharyngomaxillary space is made from below and behind the angle of the mandible forward on a line toward

the hyoid bone. The T incision of Mosher[1] may also be used. After the superficial structures have been separated, the finger is inserted in the space between the parotid and submaxillary salivary glands medial to the mandible and pushed along the inner aspect of the internal pterygoid muscle into the pharyngomaxillary space. A large rubber-dam type of drain should be inserted deeply into the space and a suitable dressing applied.

If thrombophlebitis of the internal jugular vein has taken place the incision should be extended down over the course of the vein so that adequate exposure of the vessel may be secured to permit treatment of this complication.

Reports of two cases follow. One case is that of an uncomplicated infection of the pharyngomaxillary space which followed tonsillectomy; the other is that of an infection of the pharyngomaxillary space complicated by the occurrence of thrombophlebitis and the presence of frank pus in the internal jugular vein.

Report of Cases

Case 1.—A white woman, aged twenty-three years, entered the hospital on August 14, 1946. She stated that tonsillectomy had been done two weeks previously and that the right side of her throat had remained sore ever since. The patient complained of headache and attacks of nausea, vomiting and dizziness; she said that in the last three days before admission to the hospital she had noticed, in the right upper cervical region, swelling which extended up to the cheek. She stated that she had received penicillin for one week previous to admission. A culture taken elsewhere was said to have revealed streptococci.

The patient was given both penicillin and sulfadiazine for five days; then administration of sulfadiazine was stopped and use of penicillin alone was continued for another five days. The amount of penicillin given during the course of treatment was 1,420,000 units. After the third day the patient showed marked improvement and only very slight induration remained in the superior cervical region. The induration seemed to clear up shortly thereafter. At no time was there fever of the spiking type. It was only during the first three days of treatment that she had fever at all. The highest temperature recorded was 100.6° F.; this occurred on the second day after admission.

After hospitalization for ten days the patient was dismissed. She got along well for three days, after which she again noted pain in the right side of the throat and had difficulty opening her mouth. She returned one week after dismissal. It was difficult to examine the throat because the patient was unable to open her mouth satisfactorily. Induration was present in the right submandibular region. Again the patient was given penicillin; over a period of eight days 1,040,000 units were administered. Again symptoms disappeared. A small abscess at the upper pole of the right tonsillar fossa was opened and the patient was dismissed from the hospital eight days after admission. At no time during this second period of hospitalization was there fever.

Six days after the second dismissal the patient entered the hospital for the third time. Marked swelling of the right upper cervical region and cheek was present. The patient was again given penicillin. The temperature varied between normal and 99.8° F. Two days after admission an incision was made below the angle of the jaw and an abscess in the pharyngomaxillary space was drained. The abscess also extended to the submaxillary space. Two ounces of thick yellow pus were evacuated and a Penrose drain was inserted into the wound. The patient was dismissed on the fifth day after drainage of the abscess. The amount of penicillin given during this period of hospitalization was 640,000 units. The patient has remained well since.

Case 2.—A white man, aged twenty-six years, was admitted to the hospital on October 16, 1941. The patient had undergone tonsillectomy one week before admission. Two days after tonsillectomy the patient felt ill and began to have severe chills which lasted for an hour. He noted swelling on the right side of the neck. At examination the right tonsillar fossa appeared swollen. There was tenderness in the right superior cervical region. The patient appeared acutely ill.

On the day of admission, a spiking type of temperature with a peak of 101.6° F. was observed. Intravenous administration of sodium sulfapyridine was started. On the second day blood transfusion was performed and a pharyngomaxillary abscess was drained. The infection had caused phlebitis, the site of which was the internal jugular vein. The vein, when opened, contained frank pus. There was no bleeding from the vein when a sucker tip was inserted superiorly or inferiorly. Transfusion was performed on the first postoperative day. On the second postoperative day the temperature rose to 106° F. and continued elevated. On the third postoperative day the temperature reached 107° F.; the patient died a few hours later. Cultures taken from the throat revealed Diplococcus pneumoniae. Cultures obtained from the abscess revealed green-producing streptococci.

Summary and Conclusions

Infection in the neck following tonsillectomy is dangerous. Tonsillectomy should not be carried out in the presence of acute infection in the pharynx or mouth. Great care should be employed in introducing the local anesthetic agent for tonsillectomy. Familiarity with the anatomy of the neck is important in carrying out both the infiltration for anesthesia and the tonsillectomy. After tonsillectomy all patients should be observed

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SPOROTRICHOSIS IN MINNESOTA

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SPOROTRICHOSIS is a rare disease in Minnesota. Montgomery[3] reported the last case in this state in a patient seen at the Mayo Clinic in January, 1937. Gastineau, Spolyar, and Haynes[2] reviewed the literature up to 1941 and could find only three cases from Minnesota.

The disease is comparatively common in plants and much more common in animals than in man. It is believed that man acquires sporotrichosis from contact with plants, infected animals, or animals acting as carriers. There is no record of direct transmission of the infection from man to man although Foerster[1] reported two cases in which the disease was thought to be contracted by handling contaminated dressings from lesions of sporotrichosis.

Sporotrichosis may appear in several definite or mixed clinical types. Localized lymphatic sporotrichosis is the most common type seen in the United States. Our cases were of this type and the initial lesion occurred on the usual place, the hand. The initial lesion is sometimes spoken of as a "sporotrichotic chancre" and may be present for days or weeks before other lesions appear. It was taken for a "boil" in our cases, and that is the usual diagnosis. The initial nodule is round, firm, indolent, and relatively painless. It later undergoes necrosis, liquefaction and ulceration. Days or weeks later other similar nodules appear along the lymphatics draining the initial lesion. They in turn undergo the same changes. The localized lymphatic type rarely disseminates, although the secondary gummatous lesions may remain for months or years.

The disseminated form is seen most frequently in France. Usually no primary lesion is seen, the onset is insidious, and the first symptom is multiple nodules scattered over the skin surface suggesting a blood stream infection. The lesions may or may not ulcerate. The patients are acutely ill and deaths occur.

The epidermal form usually is accompanied by nodular lesions and appears as infiltrated plaques, areas of folliculitis, or eczematous or verrucous lesions. It may mimic many other dermatoses. In some instances it may be an "id" type of lesions accompanying the subcutaneous nodular type of the disease. In both types the constitutional symptoms are mild or absent.

Sporotrichosis of the mucous membranes may be primary or a manifestation of the disseminated form. The eruption is usually in the nose or mouth and appears as erythematous, ulcerated or vegetative lesions simulating more common types of stomatitis or rhinitis.

Skeletal and visceral sporotrichosis is very rare but cases have been reported where the bones, joints, muscles, kidneys, testes, or breasts have been involved.

A positive diagnosis is made by culture and identification of the organism. In our cases the organism, *sporotrichum Schencki*, grew well on Sabouraud's glucose agar slants maintained at room temperature. In some instances it took three weeks to obtain a good growth. Examination of direct smears from pus from the lesions is unreliable and not considered of diagnostic value. It is also generally conceded that the causative organism cannot be identified in microscopic sections of the diseased tissue.

Case Reports

Case 1—D. R., a school boy, aged twelve, cut his right index finger while skinning a rabbit the first of November, 1944. About a week later an abscess appeared on the dorsum of the right index finger over the first phalangeal joint at the site of the cut. This was incised by his local doctor. At intervals of a few days several marble-sized nodules and abscesses began to appear and extend up the arm. Some of these ulcerated and others remained hard, painless and red. On examination there were two irregular olive-sized fungating lesions on the dorsum of the hand, and several marble- to olive-sized nodules on the forearm and arm, extending from the fingers to the shoulder. The lesions were asymptomatic. There was also an olive-sized ulcer on the lateral surface of the middle third of the left leg. The patient felt well and his temperature was normal. The patient had three negative agglutination tests for tularemia, the last one the first week of January, 1945. The blood Wassermann reaction was negative. The Mantoux test, 1:1000, was negative. Fungi were not found in fresh preparations made with sodium hydroxide. *Sporotrichum Schencki* were demonstrated from cultures made on Sabouraud's media. The family doctor prescribed wet packs to the lesions, the abscesses were

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Fig. 1. Case 1. The initial lesion is on the index finger, with ulcers and nodules extending along the lymphatics.

incised and drained, sulfathiazole ointment was applied, and he was given sulfathiazole by mouth for two months without improvement. The lesions healed permanently after the patient took 15 drops of a saturated solution of potassium iodide by mouth for three weeks.

Case 2. (Dr. H. E. Michelson's Case)—M. D., a Mexican, aged forty-one, stated that on September 1, 1945, he injured the third finger of the right hand while loading corn. The fingers and the back of the hand became swollen. The lesion on the finger was incised by his local doctor but did not heal. About September 21 the patient noticed a dark, painless streak extending up his forearm. There were hard nodules at intervals along the streak. The eruption was painless and purplish-red color. The patient was admitted to the University Hospital on November 1, 1945. There was a dime-sized verrucous granulating lesion on the dorsum of the third finger of the right hand; a fluctuant, reddish-brown olive-sized mass on the dorsum of the right hand and a hard cord-like brownish-red streak extending a little above the elbow. There was bean- to marble-sized epitrochlear and right axillary lymphadenitis. The sporothrix was recovered from cultures made on Sabouraud's media. All other examinations, including a roentgenogram of the chest, were negative. The patient was given 45 grains of potassium iodide daily, and the eruption healed in seventeen days.

Case 3. (Case of Drs. F. W. Lynch and G. E. Harmon)—Mrs. O. L., a farmer's wife, aged forty-one, stated that an indolent nodule appeared on the palm at the base of the right thumb in November, 1945. The patient did not remember injuring her hand. The lesion was incised and pus expressed, but it did not heal. In a few days new lesions appeared. When seen in December, 1945, about thirty marble- to olive-sized, red, comparatively painless, subcutaneous nodules or ulcers extended from the hand to the elbow along the lymphatics draining the initial lesion. There was slight epitrochlear and axillary lymphadenitis. The sporothrix was recovered from cultures made on Sabouraud's media. The patient was given 45 grains of potassium iodide a day by mouth, and the lesions healed within three weeks. (Note: The patient stated that cattle on her farm had actinomycosis.)

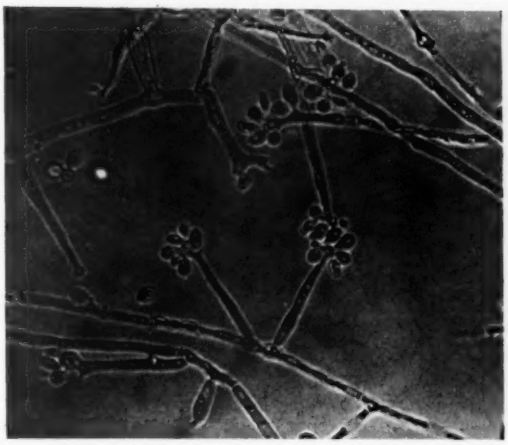

Fig. 2. Case 1. *Sporotrichum Schencki* from cultures on Sabouraud's glucose agar, showing hyphae supporting conidiophores terminated with a cluster of pyriform conidia.

Potassium iodide is considered specific in the treatment of sporotrichosis. In our cases it was specific with rapid cure. The localized lymphatic type, of which our cases were examples, responds more favorably and rapidly to treatment than other types. Roentgen ray therapy may be of value in some cases. In the first case of ours, sulfathiazole was of no value even though given over a comparatively long period.

Summary

Three additional cases of sporotrichosis were reported from Minnesota, making a total of six reported up to the present time. They were of the localized lymphatic type and all responded rapidly to treatment with potassium iodide.

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TUBERCULOSIS AMONG RESIDENTS OF OLMSTED COUNTY OVER THE AGE OF SIXTY-FIVE

Data on Blood Pressure, Hemoglobin and Urine Tests

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TUBERCULOSIS mortality rates in this area are reaching very low levels. Over the last five years, only twenty-four deaths in Olmsted County residents have been recorded as due to tuberculosis. This is less than five per year. If we estimate the population at 48,000, the mortality rate would be 10. The rate for the same period in the whole of Minnesota will approximate 25.1. More striking is the fact that for the calendar year 1946, only three residents of this county died of tuberculosis. It also might be pointed out that during this same year seventy-seven residents died of heart disease, forty-six of intracranial vascular lesions, forty-three of cancer and eight of accidents. Tuberculosis accounted for only 1 per cent of the 293 deaths.

With these low tuberculosis mortality rates, we are surprised and pleased to find an average of twenty-six tuberculosis patients from our county under treatment in various institutions. This is over five per annual death.

Surveys of adult groups of all ages in this area indicate that less than 0.2 per cent have active reinfection-type tuberculosis. This means that the finding of active cases by any survey methods covering the whole population is becoming increasingly more difficult and expensive.

Another well-marked trend has been the increase in the average age of patients admitted to sanatoria. Laird[1] states that no patients over the age of fifty were admitted to Nopeming Sanatorium in 1913. In the years 1923, 1933, and 1943, the respective percentages were 4, 9, and 20. Other sanatorium superintendents have also noted this shift in age.

In 1940, the highest tuberculosis death rate in the Registration Area of the United States for any ten-year age group was 110. This was for the age group fifty-five to sixty-four inclusive.

Considering the obvious decrease in tuberculosis infections and deaths in the general population, and the equally obvious shift toward the older age groups, the officers of the Olmsted County Public Health Association decided to attempt an x-ray sampling survey of older persons in the community.

Through the Rochester City Health Department and the Mayo Clinic, arrangements were made for weekly half-day clinics to be held during the summer of 1946. As an added inducement for patients to come to the clinic, blood pressure tests, hemoglobin tests and urine tests were also offered along with the chest x-ray examinations. The lower age limit was arbitrarily set at sixty-five, partly because this happens to be the earliest age at which persons can participate in the old-age assistance program of the County Welfare Board. Expenses of this clinic, except for certain facilities of the Health Department and the Mayo Clinic, were borne by funds from the Public Health Association, obtained through the sale of Christmas Seals. No charge was made to patients for these rather limited procedures.

Publicity was obtained through the local newspapers, the radio, the Welfare Board, and by various other means. The response varied directly with the amount of such promotional effort.

In Rochester and Olmsted County there are approximately 2,500 persons over the age of sixty-five. Although the total attendance at these clinics was only 162, or 6.5 per cent, this sample revealed several things of interest. Figure 1 shows the age and sex of those who came in.

Since the primary purpose of this project was the discovery of tuberculosis, the x-ray findings will be discussed first. Of the 151 who received chest x-rays, thirteen (8.6 per cent) had definite evidence of reinfection tuberculosis. Only one was a previously reported case. So far, we have been unable to show that any are active cases, but great difficulty has been encountered in obtaining adequate follow-up examinations, so it is quite possible that some may be discharging tubercle bacilli.

Of the lesions seen, eleven could be classified as minimal, and two moderately advanced. None was far advanced. An additional fifteen patients had some apical fibrosis. Sputum examinations were made on four of the minimal cases and on the two moderately advanced cases, but no tubercle bacilli were found. This is consistent with the x-ray appearances which did not suggest

activity except in the two moderately advanced cases.

We will continue our efforts to obtain sputum examinations and periodic x-rays on some of these patients, just as we follow other known tuberculosis cases. We are hoping to persuade a few to come in for gastric washings.

As is usual in x-ray surveys, other pathologic conditions were also uncovered. Heart enlargement was noted in eleven, and one man had a lung carcinoma from which he has since died.

The other tests, which were offered primarily to encourage attendance at the clinics, also afforded an unusual opportunity for the collection of some limited but valuable data.

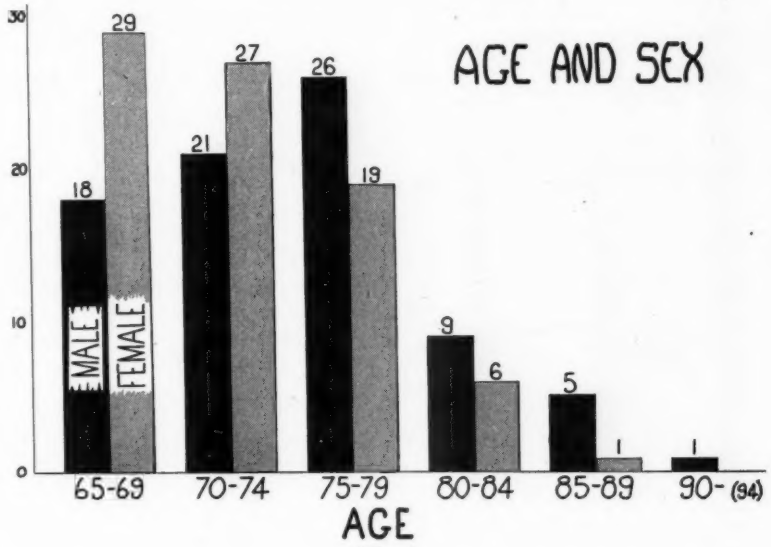

Fig. 1

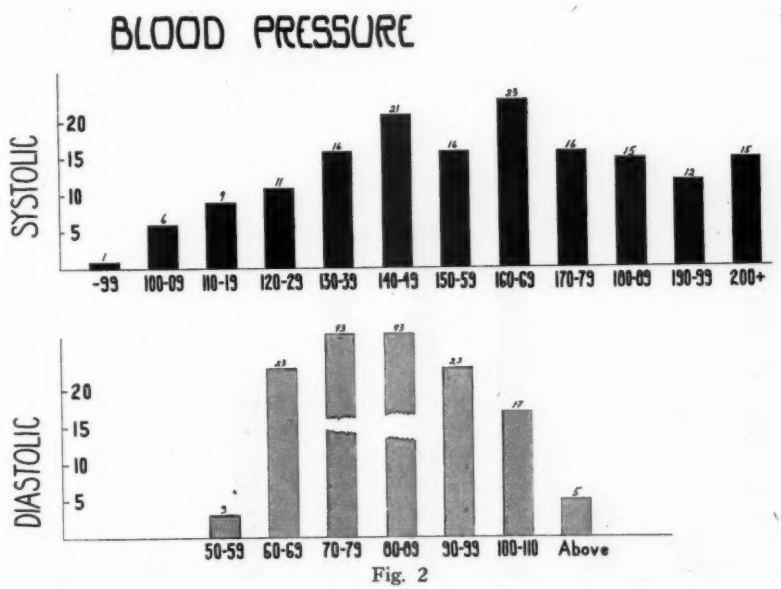

Fig. 2

The blood pressure determinations were all made by one experienced nurse using the stethoscope and mercury manometer technique. As

shown by Figure 2, and as expected, wide variations were encountered, with a large proportion having systolic pressures over 150 mm. Diastolic pressures also covered an extensive range.

In Figure 3, average blood pressures have been tabulated and charted by age and sex. Systolic pressures for women were higher than for men in every age group except in the last two where

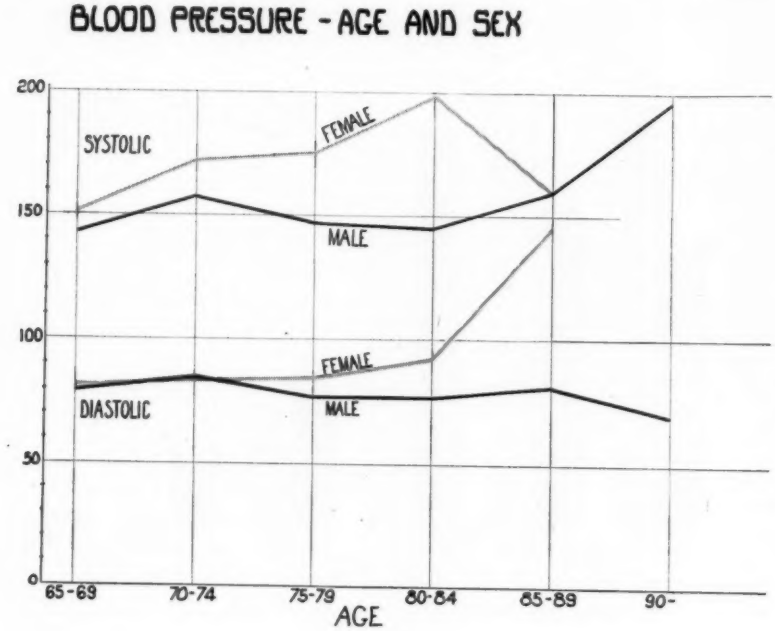

Fig. 3.

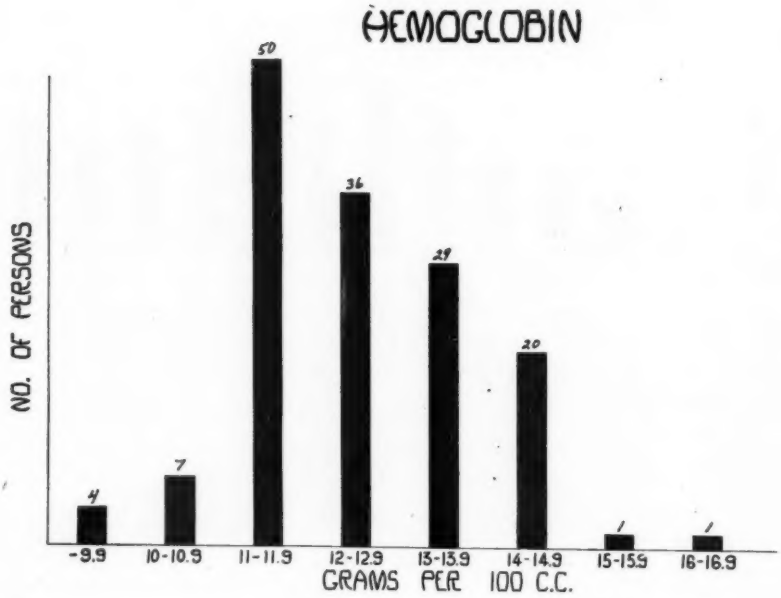

Fig. 4.

the number of observations is too small to be of any significance. Diastolic averages, however, did does not reveal the variations within each age group. In the seventy-five to seventy-nine age

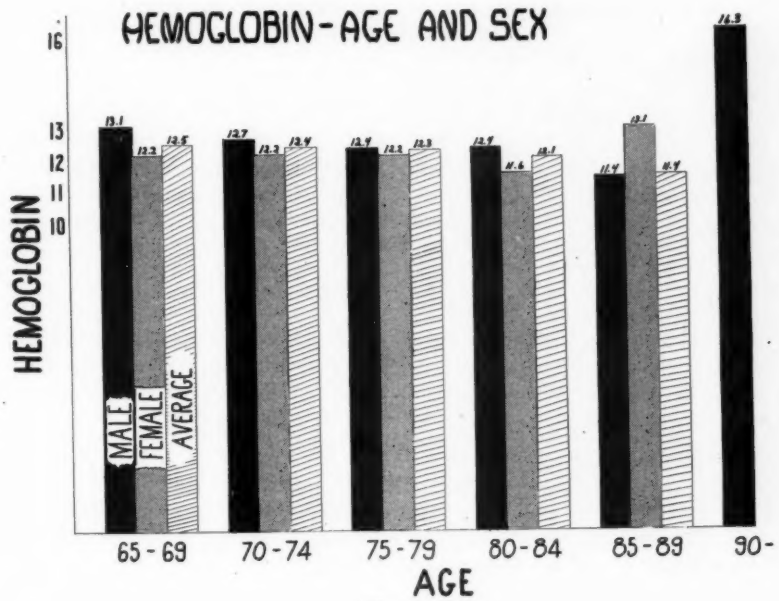

Fig. 5

not rise with age, particularly in men. This is consistent with observations on 5,331 men reported by Russek.[2] No such extensive studies on women could be found in recent literature.

Although not shown by this chart, the variations within each age group were considerable. For example, the systolic pressure in the group age eighty to eighty-four ranged from 116 to 222, with six of the fifteen below 150, and, interestingly enough, all six in men. The significance of these observations I must leave to the clinicians.

The hemoglobin determinations were done photoelectrically. Although it is often stated that a normal person should have 14 grams of hemoglobin per 100 c.c. of blood, most physicians would agree that this is a rather high standard. As can be seen in Figure 4, all except twenty-one fell below the 14 gram level, and a very considerable proportion below 12 grams.

In Figure 5, average hemoglobins are charted for age and sex. The differences are not great, but the women are consistently lower than the men in every age group. Also there is a definite inverse correlation with age.

This chart was constructed from averages, and group the lowest was 10.2 grams and the highest 14.2 grams.

The average for persons receiving old-age assistance was 12.1 grams, and for the others 12.6 grams. Considering the fact that of the 150 persons upon whom hemoglobin determinations were made, sixty were receiving assistance and ninety were not, this difference is probably statistically significant.

Qualitative tests on urine for albumin and sugar were made using Exton's solution for albumin and a commercial compressed tablet for sugar. Only one was found with excessive amounts of albumin. He had a systolic blood pressure of 260 mm. and has since died. One of the others with a 1+ albumin was later found to have a large stone in the kidney pelvis.

Three persons had sugar in the urine rated as 3+, one rated as 2+, and two rated as 1+. Only two of these six would consent to go to their physicians for further examinations, and no final diagnoses are available at this time.

Perhaps no great fundamental discoveries were made through studying this limited sample, par-

(Continued on Page 880)

METASTATIC CARCINOMA OF THE HEART

Report of a Sole Metastasis from Carcinoma of the Cecum Diagnosed Before Death

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THE incidence of primary tumor of the heart is very small: eight cases in 480,331 (.0017 per cent), according to the national autopsy experience in internship hospitals from 1938 to 1942, as reported in the *Journal of the American Medical Association*.[10] The frequency of cardiac invasion in various neoplastic diseases, however, is reported to be from 2 per cent[11] to 10.9 per cent.[15] Ritchie[12] at the Wisconsin General Hospital reports 3,000 autopsies with sixteen metastatic tumors of the myocardium. Metastases to the heart have been reported from neoplasms of all the main organs. These metastases are usually generalized but the heart may be the only one present, though this is infrequent. Burke[4] in his series of fourteen cases noted none. Yater[20] in his extensive review makes no specific observation on this point. Ritchie[12] reports one case, a cancer of the esophagus, in which the myocardium was the sole site of remote metastases.

Three routes of invasion are recognized:[4,20] (1) blood stream through the coronaries; (2) lymphatics from the mediastinal nodes against the lymph stream; and (3) direct extension.

Age in the cases reported reveals nothing of note as it corresponds to the age group in which the original tumor is apt to be found. Sex is of no importance. Ritchie[12] reports twelve males in sixteen cases but the autopsy material is weighted in about the same proportion.

Clinically no signs of involvement of the heart may be found even when extensive invasion has taken place. Any impairment and findings can usually be more easily explained by non-neoplastic conditions. Ritchie[12] reports that none of his sixteen cases was diagnosed before death. Fishbert,[5] however, records three cardiac tumors diagnosed by the presence of auricular fibrillation in two and auricular flutter in one. In 1934, Barnes[2] reported a case of a sixty-two-year-old woman in whom a diagnosis of a possible primary sarcoma of the heart was made during life. The findings were bloody pericardial effusion, an electrocardiogram showing interference in conduction, and a biopsy of a node diagnosed as metastatic sarcoma. At autopsy a tumor was found involving the right auricle and ventricle. In 1935, Shelburne[16] reported a primary cardiac tumor diagnosed during life in a twenty-four-year-old negro male by reason of (1) sudden onset of cardiac decompensation without known cause; (2) rapid accumulation of bloody pericardial fluid which did not clot; (3) no evidence of tuberculosis or syphilis; (4) predominance of lymphocytes in the pericardial fluid eliminating acute pericarditis, and (5) heart block. Rosenbaum[13] and others [7,8,12,20] have noted almost complete replacement of the heart by metastatic carcinoma in which few symptoms have been noted.[6,9] Precordial pain, angina, cyanosis, and all other cardiac symptoms or none at all may be present. The location of the lesion will of course determine many of the signs and symptoms noted.

The electrocardiographic findings that occur in the presence of tumors of the heart are not distinctive. Here again the location of the tumor is all important.[2,13,15] Right bundle-branch block, [5,16,19] partial heart block, complete atrio-ventricular block,[7] changes in the P waves,[18] flutter and paroxysmal auricular fibrillation,[1,5,14,17] small QRS complex have all been reported. They have been, in themselves, of little value in diagnosis as the very same findings may take place in many other conditions. Rosenbaum[13] reports a case of cancer of the esophagus with metastases to the heart in which persistent upward displacement of the RS-T segment occurred. The probable explanation was that the neoplastic infiltration caused almost continuous injury to the myocardium.

We are here reporting a case of cancer of the heart. It was metastatic from the colon. It was the only site found. The diagnosis was made before death.

Case Report

The patient was admitted to the St. Andrews Hospital on September 26, 1946, and died on October 10, 1946.

The patient had a questionable history of dyspnea on exertion for eleven and one-half months and was told that she had heart trouble only four weeks pre-

viously when a murmur was first heard by her local doctor. There was no history of rheumatic fever. One week previously she was sent to Dr. H. W. Peterson with complaints of pain in the right lower quadrant which had begun fourteen months before and had become more severe in the past month. A barium enema was done before entrance to the hospital and showed a neoplasm of the cecum. The patient was sent to the hospital for operation.

On first examination the patient appeared toxic and somewhat orthopneic and cyanotic on exertion. Blood pressure was 121/86, pulse rate 100, respirations 20. The heart was not enlarged to percussion. There was a loud systolic murmur at the left of the sternum and no diastolic murmurs were heard. P_2 was equal to the A_2. No other findings of significance were noted. A mass was noted in the right lower quadrant. There was moderate tenderness in this area.

The electrocardiogram (Fig. 1) showed sinus tachycardia, a flat T wave, diphasic ST_2 and ST_3, notched QRS—a definitely abnormal tracing. A flat plate of the chest showed a normal heart and chest. A diagnosis of probable neoplastic involvement of the heart was made.

Laboratory examinations showed a negative Kline test and Rh positive blood; hemoglobin 73 per cent, red blood cell count 4,000,000, white blood cell count 13,300, with neutrophiles 65 per cent, lymphocytes 34, and monocytes 1. The urine on September 26 was straw colored, with 1+ albumin and no sugar.

On September 31 at about 3:00 p.m., the patient passed about 300 c.c. of blood per rectum, which was followed by collapse. A gallop rhythm of the heart was noted. On October 1, neurological examination showed a definite weakness of the left arm and leg, and it was thought that the patient had had a cerebral accident or possibly a metastasis to the brain. The pulse improved and was regular but the patient remained listless and unresponsive. Throughout her hospital stay she had a streaking of the stools with blood and a cyanosis of the lips and fingers. She also had slurred speech and a dysphagia. From October 1 until her death the patient remained unresponsive and flailed her arms about a great deal. She was involuntary from that time on. On October 9 a urine odor was noted on her breath. She expired on October 10. Her temperature varied between 97° and 103° during her hospital stay.

The autopsy showed a 161 cm. woman weighing approximately 105 pounds. She was well developed and poorly nourished. Rigor was present as well as hypostasis. There was no edema. The fingernails and toenails were cyanotic. The pupils were 7 mm. and equal. The right leg and arm appeared smaller than the left. The right leg measured 24 cm. at the calf and the left 29 cm. There were small bruises on the right hip and a hemorrhage on the left hip. The left upper arm was swollen and reddened and the veins were very prominent. The peritoneal cavity was smooth and glistening. No fluid was present. The appendix was present and normal. The liver was 11 cm. below the xiphoid process and 3 cm. below the midclavicular line on the right. The pleural cavities showed no fluid. There was an adhesion on the base of the right upper lobe. The pericardial sac contained 50 c.c. of straw colored fluid.

The heart weighed 350 grams and had an enlarged right auricle. A mural thrombus was present in the

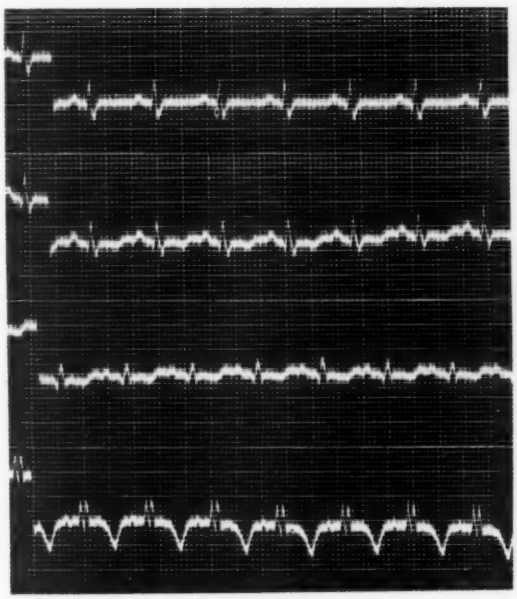

Fig. 1. Electrocardiogram shows sinus tachycardia, a flat T_1, diphasic ST_2 and ST_3, and notched QRS.

right auricle. The right ventricle had a tumor filling the entire chamber, with the point of attachment on the posterior side. One knob of the tumor extended through the pulmonary valve. The root of the aorta was normal. The coronaries were patent and showed no sclerosis.

The right lung weighed 200 grams and the left 150. The right lung had many small areas of hemorrhage, the largest one measuring 3 cm. in diameter. In the left lung the same small hemorrhagic areas were present.

The spleen weighed 200 grams. It had four hard whitish areas on its surface, the largest measuring 2 cm. in diameter.

The liver weighed 1,600 grams. On cut section it had a pale mottled appearance. The gall bladder was normal and the bile ducts were patent.

Gastrointestinal tract: There were adhesions of the omentum over the cecum. A mass was palpable in the cecum. When the tumor in the cecum was cut, it had a fungating appearance and measured 6 cm. in diameter. There were portions of the tumor which contained cartilage.

The pancreas and adrenals appeared normal. Each kidney weighed 110 grams. Both kidneys had large white nodular masses on their surfaces which extended into the cortex of the kidney and measured 2 by 5 cm. in diameter. Aside from this the kidney surface was

smooth. The right ureter was slightly dilated, but the bladder and genital organs appeared normal.

The organs of the neck appeared normal. No enlarged mesenteric lymph nodes were found.

Thrombi were present in the common iliac veins. An embolus was found in the portal vein.

Microscopic: The lungs showed areas of infarct and patchy areas of atelectasis. A section taken through the tumor in the cecum showed an adenocarcinoma, with some sections having a gelatinous appearance.

The kidneys microscopically showed small infarcts; otherwise the glomeruli and tubules were normal.

Sections through the tumor in the heart showed an adenocarcinoma.

The liver had areas of central lobular necrosis typical of chronic passive congestion.

The spleen had thrombi in its arteries and infarction of the parenchyma.

The brain showed a large necrotic area in the right occipital lobe 2 cm. in diameter. No tumor cells were present.

Diagnoses: 1. Adenocarcinoma of the cecum.

2. Large metastasis of adenocarcinoma to the wall of the right ventricle completely filling the chamber.

3. Thrombosis of the common iliac artery.

4. Infarct of the kidney, spleen, and lungs.

5. Thrombosis of left axillary vein.

6. Infarction of the right occipital lobe of the brain.

7. Chronic passive congestion of the liver.

Comment

Given a case of known cancer with no previous history of cardiac pathology, with sudden development of rapid pulse and cyanosis on exertion, a loud systolic murmur only recently heard, a negative history of rheumatic fever, negative findings or history of syphilis or tuberculosis; and beyond that a definitely abnormal electrocardiogram in a young individual—it is quite reasonable to give strong consideration to neoplastic involvement of the heart. The findings in this case justified the diagnosis which autopsy confirmed.

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The following quotation is taken from the U. S. Senate's report on a bill providing for the appointment of a by-partisan commission to streamline the executive branch of our government as reported by the Council on Medical Service of the AMA.

"During the past sixteen years, national and international events have necessitated a constantly expanding emergency government. In the wake of the prolonged economic distress of the 1930's and the four years of direct participation in World War II, the number of principal components of the Federal Government have multiplied from 521, in 1932, to 2,369, in 1947. The annual pay roll of the executive branch of the Government today approximates 6¼ billion dollars which is 1½ billion dollars more than the Government spent for all purposes in 1933. The executive branch now employs more people than all the State, city, and county governments combined. In this sprawling organization called the United States Government, functions and services criss-cross and overlap to a degree which has astounded every student of governmental operation. For example, there are no less than twenty-nine agencies lending Government funds, thirty-four engaged in the acquisition of land, sixteen engaged in wildlife preservation, ten in Government construction, nine in credit and finance, twelve in home and community planning, ten in materials and construction, twenty-eight in welfare matters, four in bank examinations, fourteen in forestry matters, and sixty-five in gathering statistics. Excluding the Army and the Navy, there are more Federal employes on the pay roll today than on V-J day.

"In its annual evaluation of Government budget estimates, the Congress and its committees are constantly faced with a well-nigh insoluble dilemma. In striving to strike an equitable balance between justifiable expenditures and imperative economy, the conscientious search for the necessary facts more often than not leads up dead-end paths or becomes enmeshed in a maze of confusion and doubt. There is nobody who can tell us in detail, and with informed authority, just where we can consolidate, or where we can eliminate, or where, if necessary, we must expand. This situation forces Congress to swing the meat ax rather than manipulate the surgeon's scalpel. Efficient economy cannot be predicated on guesswork, no matter how sincere the effort. Efficient and economical government can be the product only of painstaking study and authoritative analysis."

CLINICAL-PATHOLOGICAL CONFERENCE

CHORDOMA

A Sacrococcygeal Type Case Report

ARTHUR H. WELLS, M.D., ARNOLD O. SWENSON, M.D., and HAROLD H. JOFFE, M.D.
Duluth, Minnesota

DR. A. H. WELLS: Although a rare disease process, chordoma is indeed a most interesting subject for a review.

Fig. 1. Anterior-posterior view of soft tissue mass and destruction of sacrum marked by arrows.

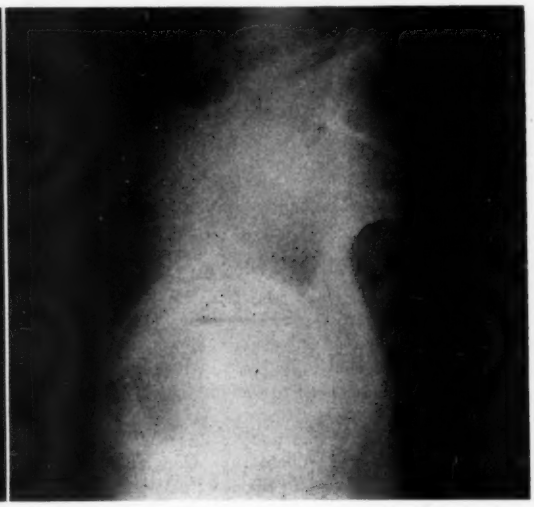

Fig. 2. Lateral view of destruction of sacrum.

Case Report

DR. A. O. SWENSON: This eighty-seven-year-old retired white male (Case 82963) was admitted on April 31, 1947, complaining primarily of difficulty of having bowel movements, and secondarily, of a large mass situated over the sacrum. He sustained a bad bump on his back in an auto accident twelve years earlier, but not sufficiently severe to consult a physician. A few months later, he noticed a small lump over the injured area (sacrum). This mass slowly grew in size and caused no trouble until he began having difficulty with his usual daily bowel movements. There had been no pain, sphincteric or other sensory disturbances. His weight and appetite had not changed.

The physical examination revealed the expected usual senile changes in an eighty-seven-year-old, well-nourished, and fairly well-developed male. There was a huge, irregularly rounded, firm mass extending from about the second sacral nerve to the anus and measuring about a foot in diameter. It was firmly fixed to the pelvis over a large base. There was no bruit or fluctuation. The mass could be felt crowding the rectum from the dorsal aspect but did not infiltrate its walls. The patient stood with a decided foreward tilt above the hips.

His blood pressure was 230/130 mm. of mercury. Urinalysis, blood counts, and blood urea nitrogen, sugar, nonprotein nitrogen and creatinine were in a normal range.

DR. A. L. ABRAHAM: Roentgenograms (Figs. 1 and 2) reveal the soft tissue mass inferior and posterior to the ischial bone. There is destruction of the inferior portion of the sacrum and coccyx of an osteolytic nature. A chest film reveals a double scoliosis of the thoracic spine. There is, in addition, a marked curvature of the lumbar spine with its convexity to the left and hypertrophic changes in the bodies of the vertebrae.

The sacrococcygeal lesion best fits the diagnosis of a chordoma; however, some other bone-destroying lesion cannot be ruled out.

From the Department of Pathology, St. Luke's Hospital, Duluth, Minnesota, Arthur H. Wells, Pathologist.

DR. A. O. SWENSON: On April 7, 1947, under procaine spinal, nitrous oxide and ether anesthesia, the large tumor mass was resected except for fragments invading the remaining eroded sacrum. The postoperative course

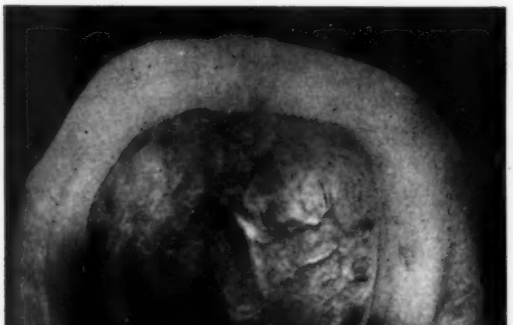

Fig. 3. Dorsal view of the buttocks and the protruding tumor mass.

Fig. 4. Cut surface of chordoma.

was uneventful. A large defect over the rectum had been packed with gauze. This slowly granulated in over a period of two months.

DR. A. H. WELLS: The irregularily rounded, relatively smooth surfaced mass measures 10.5 by 21 by 23.5 centimeters. There is a strong opague, fibrous capsule covering all but about 20 per cent of the outer surface at the site of attachment to the sacrum. The cut surface (Fig. 4) is made up of numerous irregularly rounded, highly refractile spaces filled with tenacious to solid clear mucoid material. These vary from about 1 millimeter to 2.5 centimeters in diameter and are separated from each other by strong, clear-cut fibrous septa. Occasionally clusters of nodules form larger nodules.

Histologically (Figs. 5 and 6) the prominent fibrous septa separate rounded areas containing what appears to be badly degenerated and vacuolated neoplastic cells. There is a predominance of mucoid material inclosed in delicate fibril-like strands generally arranged in irregular circles. These, at times, appear to be the remnants of cell walls for there are transitions between them and the huge vacuolated or physaliphorus cells which are present in clusters near the margins of nodules. Isolated cells with elongated cytoplasm, with indistinct margins and oval or elongated nuclei, are scattered through the more mucoid areas. A few closely related syncytial cells with three to six nuclei are also found in these areas.

The diagnosis in sacrococcygeal chordoma.

Notochord

The notochord, or corda dorsalis has its origin from the entoderm about the same time that the ectoderm gives rise to a similar parallel dorsally placed longitudinal tube of epithelial cells, the neural tube. It forms the functioning spiral axis in the amphioxus, a species representing the connecting link between vertebrates and invertebrates. In man the structure is generally considered destined to physiologic and anatomic oblivion by the formation of the vertebral axis. However, it may conceivably have a function in the nucleus pulposus into which it has been forced from the bodies of vertebrae by "tissue growth pressure." Remnants of its cells have been described in the semiliquid centers of the intervertebrae fibrocartilages even in adults. Schmorl has observed three cases of persistence of the notochordal channel through the centers of the bodies of vertebrae in adults. Offshoots of the chorda which are located principally in the saggital plane have been repeatedly described.[14] Remnants of notochordal cells have been found on the anterior or dorsal aspects of the vertebral bodies. At the cephalic end the notochord passes through the dens and the dentate ligament to the dorsal surface of the basilar portion of the occipital bone, thence through this bone to its ventral surface to lie immediately adjacent to the pharynx. It then passes back into the basilar bone finally to end up in the dorsal sellar region of the sphenoid bone. At the caudal extreme, the regression of the tail vertebrae results in much coiling and offshoots from the main stem which finally lie in the bodies of the sacrum and coccyx.[14]

Pathology

Chordomas are found at any point along the notochord and are generally designated as to location. A modification[8] of Coenen's topographic classification is as follows:

I. Cranial
   (A) Ecchordosis physalifera
   (B) Chordomas
      1. Sphenoid
      2. Spheno-occipital
      3. Nasopharyngeal
      4. Dental

II. Vertebral
  (A) Cervical
  (B) Thoracic
  (C) Lumbar

III. Sacrococcygeal
  (A) Antesacral
  (B) Central
  (C) Retrosacral

Ecchordosis physalifera has been substituted for Virchow's original and erroneous term of ecchondrosis physalifera and is defined as a non-neoplastic and subclinical chordal ectopia occurring on the clivus Blumenbachii (the sloping surface between the sella and the foramen magnum).[22] This apparently noninfiltrating jelly-like mass of notochordal cells ranging up to 3 centimeters in diameter has been an incidental finding in from 1.5 to 2 per cent of autopsies.[23]

Although the true chordomas are most often histologically benign, they are seldom cured because of their characteristic infiltrative nature and their intimate relationship to the central nervous system and its bony support. The tumor cells are occasionally highly embryonic with many tumor giant cells. Metastasis to local lymphnodes, liver, lungs, pleura, skin, et cetera have been found at autopsies in eleven cases, all of which were primarily located in the sacrococcygeal area.[12]

Of the approximately 250 cases of chordoma in the literature, a little over one-third are intracranial and all but a few of the remainder are sacrococcygeal in origin.[6,7,10] One study[14] of the reported cases up to 1941, revealed eighty-one cranial (33.1 per cent), 135 sacrococcygeal (55.1 per cent) and twenty-nine vertebral cases. The latter were divided ino cervical, eleven; thoracic, six, and lumbar, twelve.

No matter in what part of the axis the tumor is located, the main bulk of the neoplasm tends to be in the saggital plain and ventral, dorsal, or central in reference to bodies of vertebra or the basilar bone of the skull.

Of the cranial tumors, approximately 80 per cent are intracranial and 20 per cent extend into the nasopharynx.[2] There are five directions of extension of the cranial chordomata. The most common is from the clivus with dorsal extension. There is also an anterior-cephalic progression from the clivus, an extension into the sella, a directly anterior growth through the sphenoid sinus and a protrusion into the pharynx or the nasal cavities. They are nearly always associated with much destruction of basilar bone. Frequently intracranial nerves are engulfed and seldom the tumor invades the pons, pituitary, or temporal lobes of the cerebrum.

The sacrococcygeal chordomata can be generally classified as anterior, posterior, or central in location. There is nearly always much invasion of the sacrum and extension along its nerves.[3,7,15,20,25] The anterior lesions frequently crowd the pelvic organs and occasionally invade the rectum.

The histology of chordomata reproduces the ontogeny of the notochord from the rarely found regular cavities lined by cuboidal epithelium as found in the primitive tube to the most mature manifestation of stringy atrophic syncitial cells engulfed in mucus, at times found in the nucleus pulposus. The two intervening stages progress from large solid polyhedral epithelial-like cells frequently in cords to vaculated or physaliferous (physalis bubble) cells. The latter are characteristically found in practically all chordomata. The older cells appear to die in their own secretions similar to the common phenomena in mucoid carcinoma. The intracytoplasmic vacuoles stain with glycogen identifying dyes even after the glycogen should have been dissolved out by the fixitative.[7] Intranuclear vacuolization is more rarely noted. Most chordomata have a coarse capsule and well-defined globular, fibrous septa enclosing nodules with a more cellular peripheral zone made up of solid polyhedral and physaliphorous cells and a poorly cellular central area with stringy atrophic and syncitial cells with much extra cellular mucus.[7,21]

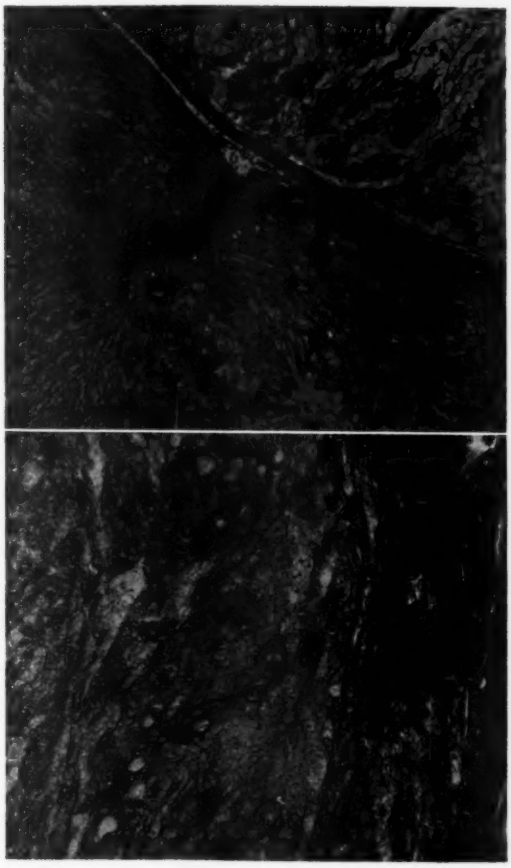

Fig. 5. *(above)* Low power view of fibrous septa and adjacent tumor cells.

Fig. 6. *(below)* Physaliphorus and polyhedral cells typical of chordoma adjacent to fibrous septa.

Clinical Manifestations

The signs and symptoms of chordomata are those of a slowly growing malignant tumor interfering with nerve function or mechanically pressing on adjacent organs at some site along the original path of the notochord. The intercranial lesions generally cause a progression of unilateral or bilateral palsies especially of the sixth, third, and fifth nerves. Intracranial pressure symptoms are next most important, with evidence of interference with the optic nerves, the pyramidal tract and the cerebellum of less frequent occurrence. [5,10,24] A characteristic V-shaped defect is occasionally demonstrated by x-ray examination of the basilar bone.[24] Pneumographic visualization of a cephalic displacement of the fourth ventricle and aqueduct appears to be more reliable than the demonstration of bone destruction.[2,8] Nasopharyngeal extensions may mechanically block these passageways and even invade the paranasal sinuses. None of the findings is pathognomonic except biopsy or aspiration. One must differentiate cranial chordoma from craniopharyngioma (Rathke's pouch), parasellar meingioma, pontile glioma, neurinoma, dermoid cyst, chondroma, myxosarcoma, hypophsis tumor, metastatic carcinoma and pharyngeal carcinoma.

The sacrococcygeal chordomas are nearly always associated with pelvic pain and sometimes sciatic pain. Tenderness is common. Objective and subjective numbness are frequent. Sphincteric disorders and obstruction of the rectum are found.[7,11,25] Sacrococcygeal chordomas are almost twice as frequent in males as females as compared to an almost equal sex occurrence in the cranial neoplasms.[17] The caudal lesions have their highest incidence in the fifth and sixth decades about twenty years after the peak occurrence of sphenoöccipital chordomata.[17] The neoplasms at either site may be found at any age.

The digital demonstration of a mass in the hollow of the sacrum and x-ray evidence of a tumor-like destruction of the coccyx and sacrum should always suggest chordoma. This neoplasm must be differentiated from teratoma, dermoid cyst, ependymoma, giant cell tumor, neurofibroma, Ewings tumor, myxochondrosarcoma, metastatic carcinoma, and carcinoma of the rectum.

Treatment

A cure for chordoma in any site nearly always necessitates radical surgery. Temporary amelioration is all that can be hoped for in the cranial lesions.[13,4] For intercranial lesions a two-stage operation has been devised.[24] First, a cerebellar decompression, with resection of a large part of the cerebellum on the side of greater nerve palsies, and tentorial section are performed. The second operation consists of a piecemeal extirpation of the mass with sacrifice of the fifth, seventh, and eighth cranial nerves.

The sacrococcygeal chordomas have a slim but hopeful chance of complete removal. With this in mind a block resection is advised[3,18,19] with extirpation of the coccyx and sacrum up to, but not including, the second sacral nerve. A two-stage procedure with primary colostomy may be advisable.[18] Those who advise piecemeal eradication simply hope to prolong life.[7] Deep x-ray therapy is generally considered of little value except for occasional cases where alleviation of symptoms and prolongation of life are hoped for.[7,16]

The duration of life from the onset of symptoms has been estimated to from two and a half to three and a half years in cranial chordomata, six and a half to seven and a half years in sacrococcygeal lesions and one and a half to two years in the tumors of the lumbar group.[19]

Summary

The case of an eighty-year-old male with a sacrococcygeal chordoma has been presented. The tumor had grown slowly beginning shortly after trauma to the sacral region twelve years ago. Recent interference with bowel movements was the only complaint. A recurrence is expected following incomplete excision.

A summary of the literature concerning the notochord, pathology, clinical manifestations and treatment is included.

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History of Medicine In Minnesota

NOTES ON THE HISTORY OF MEDICINE IN FILLMORE COUNTY PRIOR TO 1900

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(Continued from July issue)

Albert Plummer, ninth of the eleven children of Dr. and Mrs. Nathan Plummer, was born at Auburn, Rockingham County, New Hampshire, on September 7, 1840. Nathan Plummer, a physician of English descent, was a native of Londonderry, New Hampshire, and, in 1816, a medical student at Dartmouth College; his father, also Nathan Plummer, served three years in the Continental Army during the American Revolution. Albert Plummer's mother, Mahitabel Dinsmore Plummer, of Scotch-Irish descent, was, like her husband, a native of Londonderry, New Hampshire.

Albert Plummer received his early schooling in Auburn and his academic education at Kimball Union Academy, in Meriden, New Hampshire, from which he was graduated on April 28, 1862. For a few months immediately afterward he studied medicine under his father's preceptorship, so that when he enlisted in August in the Tenth New Hampshire Regiment of Volunteer Infantry he possessed special knowledge that was to be of value throughout his military service, to the close of the Civil War, and especially in the last period, since in August, 1864, he officially was appointed hospital steward and in February, 1865, he was promoted to assistant surgeon to his regiment; from February to May, 1865, he was stationed at an army hospital at Old Point Comfort, Virginia. In the following autumn, on his discharge from military service, he entered the medical department of Dartmouth College; later he transferred to the medical school of Bowdoin College, Brunswick, Maine, from which he was graduated in 1867, having completed three full years of medical study. For a year or two thereafter Dr. Plummer taught a rural school, before deciding on the practice of medicine in the Middle West.

Among the adventures and mishaps incidental to the young physician's journey west in 1869, the uncomfortable experience of running out of money just as he entered Fillmore County, Minnesota, proved to be a disguised blessing, of lasting influence. Dr. Plummer, as he had planned to do, stopped in Rushford, in the northeastern corner of the county, to see his half-brother, Henry Plummer, who was a bookkeeper at Sprague's Mills in that town, and to view the prospects for a medical practice. Rushford, he found, already was well supplied with physicians and surgeons, and Henry Plummer, having heard that Hamilton, on the western edge of the county, might be a good location for a doctor, and having a friend who lived there, advised his brother to look over that settlement. On foot and penniless, not having men-

tioned his financial predicament, Dr. Plummer set out; a few miles east of Hamilton he traded his jackknife, his last piece of portable property, for a glass of milk. Fortunately, Hamilton was greatly in need of a physician and surgeon and he started practice almost at once; Henry Plummer's friend lent him a horse to ride on calls in the community. The newcomer had found his place, and from Hamilton as a center Dr. Plummer followed his profession for the next twenty-four years.

Hamilton, in the valley of Bear Creek, was platted in 1855 in two parts, the upper and lower villages, and by 1858 it had a store, a hotel and a Methodist church and was the home of the Bronson Institute, a Methodist "Academical school of the first class," which already had eighty pupils; the financial endowment of the school failed to materialize, however, and the institute was short-lived. The little settlement, seven miles from Spring Valley and twenty-five from Preston, was near the Mower County line; in fact, Hamilton was in both Mower and Fillmore Counties, but ultimately the entire business portion was on the Fillmore side. Because it was in a wheat-growing section and had excellent water power for grist and flour mills, the village prospered; in the sixties and into the seventies it had two mills, five stores, three churches, machine and blacksmith shops, stage connections with Spring Valley and Rochester, and "mail three times a week, on Monday, Wednesday and Friday." One of the most beautiful and most valued natural features of the place was the "Hamilton Boiling Spring," at the western edge of the village, a never failing source of bubbling clear cold water. With the gradual absorption of flour milling by the huge mills, such as those of Minneapolis, and the failure of the Southern Minnesota Railroad to pass through the little town, Hamilton gradually declined and became by the nineties one of the phantom villages of Minnesota history; its business interests gravitated to near-by Racine, in Mower County, which was founded in 1893 on the line of the Chicago, Great Western Railway.

In Hamilton, in 1869, Dr. Plummer entered into a full life, carrying a heavy practice, succeeding as he did to the local field of Dr. Wallace P. Belden and extending it, acting as dentist whenever required, for in those days none of the small communities had a resident dentist, and serving his community in ways other than professional. Ethical and progressive, he early became a member of the Fillmore County Medical Society (organized in 1866) and of the Minnesota State Medical Society, which was revived and reorganized in 1869. Further evidence that he was an able and conscientious physician is the record in the reports of the State Board of Health that he was one of the eleven physicians of Fillmore County who co-operated with the board to compile the official report on diphtheria in the county for the period from November 1, 1879, to November 1, 1880. In 1882 and 1883, temporarily adding major civic duties to professional, he served in the state legislature as representative from his district. After the passage of the "Diploma Law" of 1883 Dr. Plummer was licensed to practice in the state, receiving certificate No. 738 (R), given on January 15, 1884. In 1895 he was appointed to the Board of Examining Surgeons for the Bureau of Pensions at Spring Valley. He attended services at the Congregational and Methodist Churches, was a Mason (A. F. and A. M.) and an Odd Fellow. Other than in his profession, his greatest interest and pleasure lay in farming, gardening and raising flowers and in fishing and hunting, and happily the conditions of his life were such as to make these occupations and recreations readily possible.

Albert Plummer's marriage to Isabel Steer took place in the village of Sumner, Fillmore County, on Thursday evening, October 10, 1872 (as announced in an item in *Western Progress,* of Spring Valley, on November 6, 1872), at the residence of M. J. Hoag, The Reverend Mr. G. Millet performing the ceremony. Isabelle Steer Plummer, of Scotch-English descent, a schoolteacher in Sumner Township before her marriage, was the daughter of Greenberry Steer, of Adrian, Michigan. Of the four children of Dr. and Mrs. Plummer, Sadie and Ray died in infancy. Henry Stanley, born in 1874, at Hamilton, and his brother, William Albert, born in 1883, at Racine, lived to devote themselves to the practice of medicine.

In 1893, Hamilton having become a hamlet rather than a village, Dr. Plummer moved to Racine, Mower County, a better center from which to serve his patients, and there he remained for eighteen active years. In this place at different times he had as associates three physicians: his son, Dr. Henry S. Plummer, between 1898 and 1901; Dr. Jacob Prinzing, a graduate of the medical department of the University of Minnesota, from 1901 into 1903; and between 1903 and 1910 Dr. E. E. Benedict, also from the University of Minnesota.

The experiences of Dr. Albert Plummer as physician and surgeon, and equally as guide, philosopher and friend to his patients, were countless and of all degrees, from funny to solemn. Of the years in Hamilton and Racine Mrs. Plummer, decades later, used occasionally to reminisce, on request, to her family and close friends. These recollections, always kindly, told by a true raconteur in her own inimitable style, were a delight to the few who were privileged to hear them. One story concerned a family of many children whose parents, not blessed with mental lucidity, never could agree as to the number of the progeny that had been born to them; Dr. Plummer was called frequently to settle the quarrel, for it was a quarrel, and time after time at great inconvenience to himself he responded and with characteristic patience recounted the number of the children, their names, the dates of their birth (and of death, of some of them) and the conditions of each event.

In 1911 Dr. and Mrs. Plummer moved from Racine to make their home in Rochester. Dr. Plummer was then in failing health; his death occurred on March 20, 1912, in his seventy-second year. Mrs. Plummer lived twenty-four years longer and died in Rochester on January 15, 1936, little less than a year before the death, on December 31, 1936, of her older son, Dr. Henry S. Plummer, of Rochester, of whose household she had long been a member. Dr. William A. Plummer, the second son, survives (1947).

Graduated in medicine from Northwestern University in 1910, Dr. W. A. Plummer in June of that year entered the Mayo group as a member of the staff. He is head of a section in medicine in the Clinic and associate professor of medicine, Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota.

A brief note on the life and work of Dr. Henry S. Plummer is included here for the reason that, although he began to practice medicine when a resident of Mower County, he was, with his father, active professionally in Fillmore County.

Henry Stanley Plummer, one of the four children of Dr. and Mrs. Albert Plummer, was born on March 3, 1874, at Hamilton, Fillmore County, Minnesota. He grew up in the village, went to the local schools, and early felt

the interest in a medical career that was to last all his life. He often accompanied his father on professional calls and helped him in many ways, so that to some extent, even as a youth, he was associated with medicine in Fillmore County. When Henry Plummer was a boy of sixteen a case of thyroid tumor in his father's practice so interested him that from that time he gave thought to goiter; in his years at the Medical School of Northwestern University he followed with special care the cases of thyroid disease, medical and surgical, and in the dissecting room and the experimental laboratories, to learn all that he could about them.

In 1898 Henry S. Plummer received the degree of doctor of medicine from Northwestern University and returned to Racine, where Dr. Albert Plummer had settled in 1893, to join his father in the practice of medicine in a community which extended into Fillmore County and into Olmsted County as well. He remained in the village three years, at the end of which he joined the staff of the Drs. Mayo, Stinchfield and Graham, in Rochester. Let Dr. William J. Mayo, whose lasting pride and satisfaction it was that it had been his privilege to recognize the unusual intelligence and ability of Henry S. Plummer, tell the story:*

> It was in the latter part of the year 1900 that I was called in consultation to see a patient by Dr. Albert Plummer, a well-known practitioner of Racine, Minnesota. Dr. Plummer had two sons, Henry the elder and William the junior.
>
> I drove out the twenty miles from Rochester to Racine, to find that Dr. Plummer was ill in bed with a cold, but he said that his son Henry, who recently had been graduated in Medicine at Northwestern University, was in practice with him and would be glad to go with me to see the patient. It was arranged that I should leave my team of horses and ride the seven miles with Henry, who came out carrying a microscope in a case in his hand. We got into a little buckboard behind a gray horse and started on an hour's drive to see the patient. During this ride Henry talked to me about the blood, of which I did not know any too much. He had an extraordinary amount of information about the composition of the blood, its characteristics and function, much of which I realized was not to be found at that time in print.
>
> The case we were to see was one of leukemia, of the type with a diminution rather than an excess of the white cells; at that time it was called aleukemic leukemia; it is now designated leukopenic leukemia. Henry took a drop of blood from the ear of the patient, put it under the microscope and demonstrated the findings to me. He called in the hired man and a member of the family and took blood from each of them and under the microscope contrasted it with the blood of the patient for my information. On the way back he continued to talk about the blood; I continued to listen, and I learned much. He also spoke of interest in the thyroid gland, to which subject my brother, Dr. Charles H. Mayo, was devoting a great deal of study.
>
> When I got home that night, I told my brother, "Dr. Plummer has a son in Racine who certainly knows more about the blood, at least, than any one I have ever met. I think he is really an extraordinary young man, and I believe we had better try to bring him here and add him to the staff to bring our laboratories up to date." At that time our laboratory equipment and routine were fairly good, about that commonly found in general practice, but largely confined to surgical needs. I wrote young Dr. Plummer and asked him to come up to talk with us. He came, we went over the situation, and he came on the permanent staff early in the year 1901, thirty-seven years ago.

Dr. Plummer remained with the Mayo Clinic the rest of his life, making contributions of almost incalculable value to the institution and in many fields of medical science. Wherever modern medicine is known, there is knowledge of his work on the blood, on esophageal stenosis, on bronchoscopy

*Excerpt from Dr. Mayo's article "The Work of Dr. Henry S. Plummer," published in the Proceedings of the Staff Meetings of the Mayo Clinic, 13:417-422 (July 6), 1938; reprinted in the Collected Papers of the Mayo Clinic, 30:928-934, 1938.

and, especially, on the diagnosis and treatment of diseases of the thyroid gland. He was a master in mechanical detail also; the Mayo Clinic buildings, the first in 1912, the second, adjoining, in 1929, are monuments to his genius, marvels of efficiency for the performance and correlation of scientific work.

Henry S. Plummer was married on October 4, 1904, to Daisy Berkman, of Rochester. He died at his home in Rochester on December 31, 1936, at the age of sixty-two.

Inasmuch as the greater part of Dr. Plummer's distinguished scientific career was identified with the Mayo Clinic, a detailed biographical account will be given in the story of the growth of medical practice in Olmsted County.

David Frank Powell, a graduate of the Medical College of Louisville, Kentucky, was a successful and popular physician who practiced medicine in Lanesboro, Fillmore County, in the seventies and into the eighties.

When Dr. Powell came to Lanesboro, he was accompanied by his brothers, George and William, also practitioners, both of whom subsequently studied at medical schools in Burlington and Keokuk, Iowa, from which they are said to have emerged as full-fledged doctors of medicine. The three brothers, David Frank Powell especially, were picturesque figures, tall and large, wearing their long hair flowing to their shoulders in the manner of "Buffalo Bill" Cody; in fact, Buffalo Bill (William Frederick Cody, a native of Scott County, Iowa, who lived from 1846 to 1917), was their admired and good friend. In 1880, on the occasion of a celebration in Lanesboro, Colonel Cody came to the village in order to be present at a powwow and to visit the Powells, and at that time he enlisted Dr. Powell's help in Cody's Wild West Show, which came into full flower in 1883. Dr. Powell stayed with the show for a while during its modest beginning but later returned to medical practice.

Sometime in the seventies Dr. Powell, who apparently had unusually sympathetic understanding of the Indians, received from a Siouan tribe farther west in the state the name "White Beaver," and this endorsement of him by their kinsmen brought him the friendship and acceptance of the local Winnebago Indians, with whom he evidently was on the best of terms, for in December, 1879, a band of Winnebagos in Lanesboro "got up an exhibition under the patronage of Dr. Powell and realized almost $50." On occasion, furthermore, they would rally to his defense: At times Dr. Powell, uplifted by liquor, so ran a reminiscent account, would don a beautiful suit of buckskins, no doubt the gift of his Indian friends, get on his horse and tear up and down the streets of the village yelling and shooting off revolvers, one in each hand, to such effect that the Indians near town, fearing that he was in trouble, would hurry to the rescue, only to be assured by White Beaver that he was all right and that they might return to camp.

Mr. C. A. Ward, long a resident of Lanesboro, has described these scenes of Dr. Powell's revelry and has given other vignettes of this physician who must have been a source of interest to his more staid fellow citizens. A crack shot, Dr. Powell delighted in displaying his marksmanship, a pastime in which he was encouraged by his boon companions, Frank Bergey, who was Mr. Ward's brother-in-law, and John Rogers. Mr. Bergey, in particular, had such confidence in White Beaver that he often and cheerfully would support a potato or an apple on his head as a target for his friend who for the moment fancied the role of William Tell. When Mr. Ward was a youth

he had trouble with his eyes: Dr. Powell treated him for the disorder, kept him in a dark room a week or ten days, and the eyes were cured "slick as a whistle," and evidently remained in that condition for they were functioning without the aid of glasses, except for reading, when Mr. Ward, in 1941, was eighty-seven. Also, while Dr. Powell was still in Lanesboro, he performed "the first appendectomy on record," on a farmer living three miles southeast of Whalan, and it is said that Minneapolis newspaper in recent years published an article about it; this reference has not been susceptible of confirmation by the writer. On one occasion Dr. Powell himself was the patient, when in August, 1877, he was bitten by a rattlesnake; as has been told, Dr. Luke Miller, then of Lanesboro, formerly of Chatfield, "prescribed R. spiritus frumenti, ad lib."

Reminiscent comments on Dr. Powell's professional courage and skill are substantiated by various editorial notes of praise in county newspapers, among them the *Lanesboro Journal* and the *Rochester City Post.* In 1879 Dr. Powell's "Lanesboro Sanitarium," about which unfortunately, details are not known, was in full operation. Late in that year it was stated that Dr. D. F. Powell, "Lanesboro's skillful physician and surgeon, has been driven to the curtailment of his general practice in order to meet the demands of his special practice in surgery and the treatment of female diseases. From five to a dozen different ladies from neighboring towns and cities are constantly under his care at the Sanitarium and his success is bringing him customers for miles around." And early in 1880 it was stated that in the past fifteen months Dr. Powell had performed sixty-one operations for cross eyes and that every operation had been successful.

In 1880 Dr. Powell removed to La Crosse, Wisconsin, where in a broader sphere he continued his colorful career, practicing medicine and taking an active part in local and civic affairs; for many years he was mayor of La Crosse. After the passage of the "Diploma Law" in Minnesota, in 1883, Dr. Powell was licensed to practice in this state and received certificate No. 42 (R), given on October 11, 1883.

In the early eighties the White Beaver Medical and Surgical Institute of Saint Paul and La Crosse was in operation, by Dr. Powell. In 1883 there appeared among advertisements of medicines and appliances in the *Northwestern Lancet* of September 15 an endorsement by Dr. D. F. Powell of Celerina, The Nerve Tonic: *"I believe that Celerina is the best nerve tonic in use.* In one case (in which no other remedy was of benefit) a cure was effected. My patient was grateful and so was I."

And in the *Chatfield Democrat* of February 16, 1884, Dr. Powell had a full column advertisement for "Cough Cream made only by Dr. Frank Powell, Medicine Chief of the Winnebago Indians." To this the editor added: "Dr. Frank is having a lively tussle with the state medical board and is coming out on top. He has the reputation of being a first-class physician. We know he is a good advertiser, and what is more, does not pay for it grudgingly."

When, in May, 1906, Dr. David Frank Powell died, *the Journal of the Minnesota State Medical Association and Northwestern Lancet* stated, "Dr. D. R. F. Powell, known as 'White Beaver,' died last month. Dr. Powell was a man of no mean attainment, in medicine and other lines, and lived a life of usefulness."

George Powell, brother of Drs. David Frank Powell and William A. Powell, was a practitioner of medicine in Lanesboro. He and his brother

William in the winter of 1881-1882 spent a few months, according to the *National Republican* of Preston, in attendance upon medical lectures and in other preparation for a more thorough practice of medicine, and on their return to Lanesboro late in March, 1882, opened an office in the village for resumption of their professional work.

William A. Powell, as stated, was the brother of Drs. David Frank Powell and George Powell. Little has been learned about him except that he was well liked, as were his brothers, and that when he and Dr. George Powell returned in March, 1882, from additional study at medical schools, presumably in Burlington and Keokuk, Iowa, they renewed their medical practice "among old friends" in Lanesboro.*

Albert Wentworth Powers was born on March 31, 1850, at New Castle, Ontario, Canada West, the son and one of the five children of Calvin Siscoe Powers and Mary Ann Bailey Powers; the other children were Hartwell and Helen, older than Albert, and Martha and Frederick, who were younger. His parents both were primarily of English descent and natives of Canada; Mary Ann Bailey was born in Canada East.

The recorded genealogy of the Powers family in America dates from 1639 with the birth of Walter, who with his wife early immigrated to this country. Of Calvin Siscoe Powers' great uncles, eight fought throughout the American Revolution. Representatives of the Bailey family came from England around 1630; among their descendants one was an officer in the Revolution; many others have been clergymen. Members of the present generations of the Powers family have stated that a distant cousin of Albert Wentworth Powers was the Hart for whom Hartford, Connecticut, was named; another cousin married a McDougal, governor of Massachusetts; a third was descended directly from the wife of Millard Fillmore, onetime President of the United States.

Calvin Siscoe Powers, father of Albert Wentworth, Harley, Frederick, Helen and Martha, was a man of originality and force of character. Himself a native of Canada, his father was born in Vermont and his mother in Ireland. Leaving Canada in 1860, he brought his family to Waukokee, near Carimona, in Fillmore County in the period when Indian uprisings were imminent in Minnesota; his grandchildren have recalled stories, told them by their parents, of the frequent warnings and scares. A member of a family that had produced artists in various lines, Calvin Powers' tastes and talents ran to the study of general science, to sculpture, but chiefly to literature, public speaking and politics. He had been the editor of a literary paper in Canada; in 1878, in Minnesota, he was editing the *Dollar Weekly* at Wykoff in the interest of the Greenback Party; the following year he became editor of the *Fillmore County Radical;* in the same general period, of the *Fountain Radical,* and in April, 1881, he began the publication, at Rochester, in Olmsted County, of the *Rochester National,* also a Greenback paper and a large one, of eight columns, well executed and "edited with much spirit;" after six months, however, he returned to Fountain. In 1879 and in 1881 he represented the district in the state senate. In most of these enterprises his son, Albert Wentworth Powers, by 1872 a physician, was his associate.

*Information has been received in the archives of the Wisconsin State Historical Society there are numerous letters written by Dr. Powell and his physician brothers, all of whom practiced in Wisconsin after leaving Lanesboro, Fillmore County, Minnesota.

Albert W. Powers went to district school at Waukokee and in due time studied high school subjects under tutors. In 1869 he entered the office of Dr. Lafayette Redmon, at Preston, as a student to learn what he could of medicine and surgery before going to Chicago to enroll at Rush Medical College. The course of 1871-1872 at Rush was interrupted by the great fire of October 8 and 9, in which the college buildings were reduced to piles of brick and twisted iron and half melted apparatus. Among the students in the city who became part of the huge army of homeless citizens was Albert Powers, who lost most of his personal property in the fire and narrowly escaped with his life. The faculty members of Rush in a few days reassembled classes; the Cook County Hospital had offered the use of a clinical amphitheater for a lecture room and the Chicago Medical College the use of a dissecting room; both aids were accepted and the students of Rush Medical College were enabled to continue their work.

From Chicago Dr. Powers returned in February, 1872, to his home town of Fountain to begin his medical practice, and for a year or two immediately thereafter he was in partnership with Dr. John A. Ross; Dr. Powers was in Fountain, Dr. Ross retained his residence in Preston. By 1874 this association had been dissolved, and Dr. Powers and his father, Professor Powers were putting up the stone building that was to be occupied by them as drug store and residence. In later years the doctor's consulting rooms and **his** medical library were in his separate residence; after his death the books were placed in the drug store, where they have remained (1943).

The year after the completion of his medical course, Albert Wentworth Powers was married, on February 21, 1873, to Amanda Justina Bickford, of English descent, born near Rochester, New Hampshire, a daughter of Ira Bickford. Dr. and Mrs. Powers were the parents of five children, Elsie, Albert, Frederick, Alta and Glenn.

Dr. Powers was a good citizen, sharing the life of the community as civil servant, businessman and general medical and surgical practitioner. At one time or another in the nearly fifty years of his adult life there, he held almost every town and village office and county and state office in addition. He was justice of the peace, mayor, councilman, a member of the school board, and in 1912 he was rounding out thirty years as town clerk. When his father was state senator from the district, Dr. Powers went along on appointment as clerk for the senate.

In his capacity as physician he carried on a heavy practice, was local health officer, co-operating with the State Board of Health, county coroner from 1895 to 1896, and for a time he served, with Dr. W. W. Mayo, of Rochester, on the pension board for veterans of the Civil War. During most of his professional life prior to 1900 he was the only physician in the village; for a year or so in 1885 and 1886 Dr. Ole T. Hoftoe, newly graduated from Rush Medical College, was in Fountain before going on to Lanesboro and, in 1888, to Abercrombie, North Dakota. Under the medical practice acts of 1883 and 1887 Dr. Powers was authorized to practice in the state, in official registers of physicians of Minnesota he is listed as the holder of an exemption certificate. Part of the record, as embodied in the following letter, is of interest in connection with methods of licensure:

State of Minnesota, State Board of Medical Examiners
Seven Corners, St. Paul, Minnesota, June 3, 1899.

Dr. W. A. Powers
Fountain, Minnesota.
Dear Doctor:

I have received your affidavit of practice prior to the law of 1887. This will be placed on file in the office of the Secretary of the State Board of Medical Examiners. This gives you the legal right to practice medicine in the state of Minnesota. No other certificate is provided by law.

Sincerely yours,
(signed) John B. Brimhall,
Secretary

This letter duly was filed and recorded in the office of the Clerk of the Court of Fillmore County.

To his patients Dr. Powers was friend, confidant and adviser as well as physician. His fellow practitioners who came into the county soon after the turn of the century have spoken of Dr. Powers as an interesting character, a pleasing personality. He liked good stories, that is, funny stories, to hear and to tell, and some of his favorites still are quoted. He was a supporter of the Baptist Church of Fountain and, when this denomination was superseded in the villege by the Methodist Church, he lent his support to the latter. In sympathy with fraternal organizations, he was a member of several, among them the Masonic Lodge (A. F. and A. M.) and the Royal Neighbors of America. A very dark brunet, with black eyes, when he still was a young man he began to wear a black flowing beard; as the years whitened his hair and beard and added to his weight he became in appearance so much the conventional figure of Saint Nicholas that children who did not know him addressed him as "Santa Claus."

Dr. Powers died of heart disease at Fountain on May 30, 1921. Of his five children three survived him; Frederick of Kansas City, Missouri; Alta (Mrs. Gilbert) Kolstad, of Spring Valley, Fillmore County, who before her marriage had been a teacher in Houston, Rushford and Lindstrom, and a teacher and assistant principal of the Fountain grammar school; and Glenn, formerly principal of the high schools of Ely and Gilbert, Minnesota, of later years a photographic artist. On November 8, 1943, Mr. Glenn Powers died suddenly from cardiac disease at his home in Virginia, Minnesota. Of the original family, his brother and his sister were living.

Donald Bannerman Pritchard (1865-1931), a native of Fort Garry (Winnipeg), Canada, became one of the distinguished physicians of Minnesota. On graduation in medicine and surgery from the University of Edinburgh, Scotland, in 1887, Dr. Pritchard returned to America, and in April, 1887, having received Minnesota state license No. 1370-1 (R), he began his career as a physician in the village of Rushford, Fillmore County. In 1889 Dr. Pritchard moved from Rushford to Winona, Winona County, where he spent the remaining forty-two years of his useful life.*

Charles Wilbur (sometimes spelled Wilbor) **Ray,** born in 1856, was a graduate of the Bennett College of Eclectic Medicine and Surgery, of Chicago, in 1885. Two years later he was licensed to practice medicine in Minnesota,

*When the *History of Medicine in Winona County* appeared in MINNESOTA MEDICINE, in 1941, because of an unfortunate inadvertence it lacked a biographical note on Dr. Pritchard. A detailed sketch of Dr. Pritchard, originally prepared by the present writer as part of the story of medicine in Fillmore County, will appear separately in due time and ultimately will be included with material on the physicians of Winona County.

receiving state certificate No. 1414 (E), given on May 26, 1887, and in the next twenty-two years he followed his profession in various localities in the state. In 1890 and presumably for a year or two previously he was in St. Clair, Blue Earth County; in 1893 he was practicing in Owatonna, Steel County; and in 1894 and 1895 he was resident in the village of Canton, Fillmore County.

In Canton Dr. Ray had his home and office together in a house "back of the Presbyterian Church, facing on the opposite street." From conversations of her elders in the village it has been recalled by an early citizen, who was then a child, that Dr. Ray in his preferred specialty of obstetrics advocated the use of a mysterious "twilight sleep," and that in addition to his general medical practice he on occasion undertook surgical operations. His professional contemporaries in Canton were Dr. Henry H. Haskins and Dr. Robert A. Sturgeon.

Dr. Ray has been described in Canton as tall and dark, of medium weight, a man of social aptitude and of artistic and dramatic ability that found expression in home talent plays, which he coached and for which he designed and painted the scenery. These extraprofessional activities were not regarded with favor by certain of the residents, who in consequence called him visionary. It was Dr. Ray who, one evening in March, 1895, when the Modern Woodmen of America in Canton were holding a meeting, initiated another organization; by prearranged plans with the ladies of the village who were eligible to become members of the Royal Neighbors of America, Dr. Ray brought this group into the meeting hall during recess and then and there organized the Surprise Camp of the Royal Neighbors.

On leaving Canton in 1896, Dr. Ray moved with his wife and children to the village of Nicollet, in Nicollet County, succeeding to the practice of the late Dr. Joseph Wicke, whose stock of drugs and medicines he bought from Mrs. Wicke. For part of 1896 Dr. Ray was the editor of the **Nicollet Leader.** At this period of his life he was a member of the Minnesota State Eclectic Medical Association and for some years its secretary. It has been said that the summer of 1899 he spent in Boston and other eastern cities visiting hospitals and that in 1900 he moved with his family to California; and record exists that in 1901 he was licensed to practice medicine in California.

Within the memory of a citizen of Nicollet who in 1941 was fifty years old, Dr. Ray at two different, unspecified periods practiced medicine in that village. It seems probable that after a relatively short time in California he returned to Nicollet, for in 1907, then a member of the American Medical Association, he was living in the village, and he remained that at least into 1909. By 1912 he again was in California, in Los Angeles, where his death occurred in the following year. Mrs. Ray and the children in 1941 were said to be living in Los Angeles; attempts to communicate with them for the purpose of this sketch have not been successful.

(To be continued in September issue)

President's Letter

THE GENERAL PRACTITIONER

IN an effort to uphold the prestige of the general practitioner and to encourage him to provide his patients with the kind of medical care which he is peculiarly qualified to furnish, the Council on Medical Education and Hospitals of the American Medical Association submitted a significant supplementary report to the House of Delegates of the American Medical Association at its recent meeting in Atlantic City.

Attention was called to the fact that a Section on the General Practice of Medicine was established in 1945 and that almost a thousand physicians had registered in this section at the 1946 Scientific Assembly. Also, it was recalled that the House of Delegates had expressed its approval of the organization of sections on general practice in state and county medical societies. "In spite of this," the Council report stated, "certain hospitals have inaugurated as a matter of policy limitation of their staff appointments to physicians certified by specialty boards or holding membership in certain special medical societies. Such a policy is contrary to the principles of the Council and seems unsound. In publications which have dealt with hospital standards, the Council has expressed repeatedly the need for a hospital staff of high quality; it has never mentioned certification by a specialty board or membership in a special medical society as an important credential."

The report called attention to a resolution which was adopted by the House of Delegates at the San Francisco meeting in 1946 and which in part read as follows:

"WHEREAS, Many hospitals have not established general practice sections in their visiting active staffs and their governing heads are doubtful whether such action has the approval of the bodies which set up the rules and regulations for the approval of their hospitals for interns and residents; therefore be it

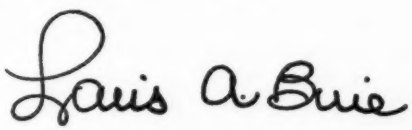
"RESOLVED, That hospitals should be encouraged to establish general practitioner services. Appointments to a general practice section shall be made by the hospital authorities on the merits and training of the physician. . . . The criterion of whether a physician may be a member of a hospital staff should not be dependent on certification by the various specialty boards or membership in special societies."

The report stated further that the Council had published a statement in the *Journal of the American Medical Association* of May 3, 1947, which read in part as follows: "It was never intended that staff appointments in hospitals generally, or even in hospitals approved for residencies, should be limited to board-certified physicians, as is now the policy in some hospitals. . . . Hospital staff appointments should depend on the qualifications of physicians to render proper care to hospitalized patients as judged by the professional staff of the hospital and not on certification or special society memberships.

"In this opinion," the report continues, "the Council has the full concurrence of the Advisory Board for Medical Specialties."

Also, "The American Board of Surgery is not concerned with measures that might gain special privileges or recognition for its certificants in the practice of surgery. It is neither the intent nor has it been the purpose of the Board of Surgery to define requirements for membership on the staffs of hospitals."

The concluding note in the supplementary report was to the effect that the Section on the General Practice of Medicine is considering the establishment of an American Board of General Practice. The Council expressed the opinion that the wisdom of such a move at this time is debatable. Possibly a greater usage of the skill of the general practitioner in hospital practice may make superfluous the need for a specialty board.



President, Minnesota State Medical Association

Editorial

CARL B. DRAKE, M.D., *Editor;* GEORGE EARL, M.D., HENRY L. ULRICH, M.D., *Associate Editors*

IF YOU WERE TOLD—

That President Truman in a message sent to Congress, November 19, 1945, urged the enactment of a national health program typified by the Wagner-Murray-Dingell Bill which had been submitted to Congress;

That Thomas Parran, Surgeon General of the U. S. Public Health Service, on December 10, 1945, sent a letter to all his field men and operatives throughout the country telling them that the executive agencies of the Government had been instructed by the President to assist in carrying out this proposed national health program;

That pursuant to this policy, the U. S. Public Health Service launched a series of so-called "health workshops" throughout the country which were meetings held in order to develop pressure groups favoring the Wagner-Murray-Dingell Bill;

That the "health workshops" were planned, conducted and largely financed with Federal funds by a key group on the Government payroll, who used the workshop method of discussion subtly to generate public sentiment in favor of socalized medicine;

That the Government paid the expense of attendance at these "health workshops" of Federal employes in the USPHS, the Children's Bureau, the Office of Education, the U. S. Employment Service, the Department of Agriculture, and the Bureau of Research and Statistics, Social Security Board;

That Federal employes arranged these "health workshop" meetings, invited delegates, trained delegates, presided at meetings, and framed resolutions;

That the Bureau of Research Statistics in the Social Security Board prepared pamphlets and propaganda literature for the CIO, AFofL and Physicians' Forum (a propaganda agency for the Wagner-Murray-Dingell Bill) biased in favor of socialized medicine;

That $75,000,000 were spent in 1946 in the executive branch of the Federal Government for publicity and propaganda purposes and that during that year 45,000 Federal employes were engaged full or part time in such activities;

That Mr. Isadore Falk, Director of the Bureau of Research and Statistics, urged that one Jacob Fisher, a member of his staff and an avowed communist, be sent to New Zealand at Government expense to study compulsory health insurance there—

Would you believe it?

Yet this information* and more, too, was unearthed by a subcommittee of the Committee on Expenditures of the Executive Department of the House of Representatives, was transmitted to the Speaker of the House, and was brought to the attention of the U. S. Department of Justice with the request that the Attorney General at once initiate proceedings to stop this illegal expenditure of public money.

While it is quite proper for the President of the United States to transmit his views on legislation to Congress, it is absolutely contrary to law to use Federal funds for the purpose of influencing legislation pending before Congress.

We taxpayers are apparently employing individuals in the executive division of our Federal Government who at our expense are trying to influence the public to enact the Wagner-Murray-Dingell Bill, which will add thousands of employes and strength to bureaucratic Washington and will lead to deterioration of medical care in our country.

*Investigation of the Participation of Federal Officials in the Formation and Operation of Health Workshops. House Report No. 786, 80th Congress.

ASSOCIATED MEDICAL CARE PLANS

IT was not until the December, 1945, meeting of the American Medical Association House of Delegates that our national organization gave its approval of voluntary nonprofit prepayment plans for medical care. The organized profession was slow to give its official approval to the Blue

Cross, although many physicians felt that hospital expense was an insurable expense. The Blue Cross eventually proved its practicability and obtained the wholehearted support of the profession.

By December, 1945, some nine organizations had established nonprofit prepayment plans for medical care, the oldest statewide plan being the California Physicians' Service established in 1939. These organizations had formed an informal Council on Medical Care Plans, representatives of which met with the AMA Council of Medical Service in February, 1946, and formed Associated Medical Care Plans, an independent corporation. A few years ago there had been some talk of forming a prepayment medical organization on a national scale, but the idea was wisely abandoned.

The AMCP is governed by a commission of thirteen members, ten of whom are selected from persons directly associated with member Plans and three of whom are nominated by the AMA Council of Medical Service. Thus, while controlled by component members of the organization, AMCP is closely associated with the AMA.

On May 1, 1947, AMCP claimed thirty-nine members, and many additional units in the process of organization will doubtless be added in the near future, Minnesota Medical Service being one.

The AMCP has several important functions. It will assemble actuarial data which are essential for any insurance undertaking. This will be made available to the component units and to new organizations. Reciprocal arrangements will be made for exchange of membership privileges with a minimum of red tape. A mechanism is provided for selling the idea of this type of insurance to the medical profession, as well as to the public, on a national basis. Insurance, no matter how meritorious it may be, does not sell itself.

There is every reason to believe that medical insurance not only for the low-income group, for whom the organizations sponsored by the profession provides complete coverage, but also for those in the higher income brackets will grow by leaps and bounds, just as hospital insurance has. Members of the medical profession sold on the idea can act as publicity agents by urging their patients to buy medical insurance.

COMMUNITY CHEST

EACH year the 1,000 Community Chests throughout this country and Canada put on campaigns for raising funds for the 12,000 services they support. These campaigns take place each fall in the larger cities in Minnesota.

The idea of grouping the local services, which depend on the generosity of citizens, began sixty years ago in Denver, Colorado. This grouping of local activities affects an economy in the raising of funds, enables the contributor to give one sum yearly to a group of worthy activities instead of giving to them separately and does away with his not knowing how many he will be asked to contribute to nor how much he should give to each. He is also saved numerous calls from solicitors. Another advantage of the Community Chest idea is the apportioning of contributions by the Chest Budgeting Committee so that certain units do not suffer from lack of funds and others are not surfeited.

During the war, foreign relief organizations were combined with Community Chests thus providing the same advantages and economies. These affiliations were terminated last year.

The American Red Cross has never joined the Community Chest and, we think, quite wisely. The Red Cross has a special appeal, and its budget varies from year to year being enormously increased in war years and when other catastrophies strike. The organization's new undertaking of establishing blood banks on a nationwide and permanent basis is sure to prove a valuable but expensive undertaking.

The Community Chest idea is what we like to think of as a typical American institution. The majority of citizens dig into their pockets to support activities for the benefit of the communities. It is said that four out of ten individuals benefit directly from chest-supported activities. The other six undoubtedly benefit indirectly. The agencies which provide activities for children and the youth of the community and for the betterment of family life constitute a large part of Chest membership. With juvenile delinquency on the increase, nothing is needed more. Last year in our country 108,787 persons under twenty-one were arrested. Though this represents only 16.9 per cent of the total number arrested, it is a reflection on present-day trends.

Community Chest units are not all dispensers of charity. Many provide activities not charitable in nature. Community Chests deserve wholehearted support, because they make life better wherever they operate.

REPORT OF MINNESOTA AMA DELEGATES

This year, 1947, marked the 100th year of the organization of the American Medical Association at Atlantic City. The occasion was made especially notable by the visitation of noted medical representatives from practically every country on the globe, who brought to the convention offerings for the AMA, either from their national medical societies or their respective governments.

The meetings of the House of Delegates this year were somewhat more arduous than usual, and Mr. Delegate could find only two half days to visit the scientific session and none for the commercial exhibits.

There are several topics we would like to report on. First, the day of the general practitioner is here, and receiving more attention than usual. Last year a section was created for the general practice of medicine; suggestions were made that hospitals establish a division of service for the general practitioner. This emphasis was made necessary by the fact that many hospital staffs are dictated to by the numerous specialty boards. Second, the mid-year session of the House of Delegates will hereafter be held in various sections of the United States, two days being set aside, preceding the meeting of the delegates, for scientific sessions devoted to the general practice of medicine.

The nursing problem was another highlight, arousing much discussion, and the questions of practical nursing education and the shortening of nurses' training periods were brought up. It is apparent that too much stress has been put on technical and scientific preparation for the prospective student nurse rather than on her sympathetic understanding of problems in patient handling. We will hope for an attempt to bring about a solution by a joint committee of members appointed by the AMA, the American Board of Nursing, and the American Hospital Association.

A new section on chest disease was created, which, it is felt, will stimulate more knowledge on many obscure problems of the chest.

Problems of the Army and Navy regarding medical care in possible future wars resulted in the formation of a National Emergency Medical Service, which will undoubtedly not only change many medical problems resulting from World War II, but plans of civilian medical men. The next war, if and when there is one, will be an atomic war, and non-combat areas must be protected as well, if not better, than combat areas.

As a result of surveys made in 1946 by the AMA, it is generally agreed that affairs at the Home Office are gradually crystalizing into a far more efficient management. Dr. George Lull, general secretary and manager, is rounding out a very capable group of executives for the various divisions. The National Physicians Committee was again endorsed. During the past year they did a most excellent piece of work in Hawaii, when a bill to establish a socialized type of medical practice in the Hawaiian Islands was defeated.

The inability to secure paper, in addition to the inability to secure medical publications from abroad—a result of the war—is about licked, and you soon will see the Index Medicus on your shelves again. Also, the Directory of the AMA will soon be published. These are two very important publications.

The election of Dr. R. L. Sensenich of South Bend, Indiana, as President-Elect, was unanimous. Dr. Sensenich, an able executive, excellent speaker and a good internist with a keen grasp of AMA affairs, has the highest respect of the medical profession.

FRANK SAVAGE, M.D.
E. W. HANSEN, M.D.
A. W. ADSON, M.D.
W. A. COVENTRY, M.D.

WATER-BORNE TULAREMIA

(Continued from Page 850)

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TUBERCULOSIS AMONG RESIDENTS OF OLMSTED COUNTY OVER THE AGE OF SIXTY-FIVE

(Continued from Page 859)

tircularly since there was a definite overemphasis on persons receiving old-age assistance, but the finding of 8.6 per cent of this group with reinfection-type tuberculosis is certainly of immediate importance. In no other group of our population can we find such a high percentage of significant lesions.

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MEDICAL ECONOMICS

Edited by the Committee on Medical Economics
of the
Minnesota State Medical Association
George Earl, M.D., Chairman

DELEGATES DISCUSS HEALTH QUESTIONS AT DULUTH MEET

Use of an anti-tuberculosis vaccine, a plan for co-ordinating local health services, a program for stimulating public interest in heart disease and a cash sickness benefit system for railroad employes were among the several important matters to come up for discussion at the House of Delegates at its annual session in Duluth last month.

Physicians were urged to "proceed with caution" as regards inoculating patients with the widely popularized anti-tuberculosis vaccine, BCG. The House of Delegates passed a resolution opposing the indiscriminate use of this drug.

The new agent, whose full name is Bacillus-Calmette-Guerin, is prepared by suspending virulent tubercle bacilli in an innocuous liquid. The bacilli used for BCG are not as strong as some but are strong enough to produce tuberculosis.

Not Sufficiently Studied

No organized, thorough studies have been made to determine BCG's actual value in treatment or prevention of tuberculosis, the resolution pointed out. It further said that inoculation with BCG renders body tissues particularly sensitive to tuberculin and thus nullifies the value of the tuberculin test which has been used so effectively.

Further study of special groups under carefully controlled conditions with sufficient time to make the experiment worth while before its use is publicly advocated was deemed necessary by the delegates. The resolution deplored the widespread publicity given to the use of BCG for tuberculosis control work, which is leading to a feeling of security among our citizens. In Minnesota highly satisfactory results are being obtained by proved methods, as shown by marked reduction in mortality, morbidity and infection attack rates, and therefore every effort should be exerted to protect these results.

Health Council Plan Approved

A plan for the co-ordination of all health services and the bringing together for greater mutual understanding of all of the members of medical and allied health professions who provide health care and the citizens who receive the services was approved by the House of Delegates, as outlined in the report of the recently organized committee on Rural Medical Service.

As its answer to the various problems with regard to the distribution of medical and nursing services, hospital facilities, school health and health education programs and conflicting health campaigns, which can beset an individual community, the Committee proposed that a health council be organized at the local level to provide a chance for interchange of ideas and opinions leading to better understanding among those groups involved.

The health council idea is not a new one. Other states, notably Michigan, have formed them and have found them to be a sound, practical answer to much of the overlapping of services which can occur. These councils are formed first at the local level, in areas where they are deemed most advisable. Later a council can be formed at the state level, and eventually at the national level.

AMA Advocates Health Council Plan

Our State Committee on Rural Medical Service, which with the approval of the House of Delegates now has for its official project the formation of local health councils, was created by action of the Council of the Minnesota State Medical Association following a request of the American Medical Association. On January 4, 1947, the present Committee, with one representative from each of the nine Councilor Districts, was appointed by the Council; and Dr. Paul C. Leck of Austin was named Chairman.

The activities of the present Committee are co-ordinated closely with those of the parent com-

mittee of the AMA. At the two national conferences on Rural Health, sponsored by the AMA committee, there has been developed rather uniform agreement that health councils should be organized to enable professional and lay groups interested in health problems to meet together. The AMA Committee on Rural Medical Service recommends that these health councils be organized on a local, county or trade-area basis before state and national councils are developed. The national committee further urges that the medical profession show active leadership in organization of these health councils as a part of a program for extension of medical service.

Three Groups Represented

According to the proposals made at the National Rural Health Conference, health councils should be organized so as to represent three major groups concerned. First of all, there should be members of those allied and auxiliary professional groups who render health service; second, there should be representatives of the public-at-large who receive health service; and, third, persons representing governmental agencies manifesting a continuing interest in health and medical care should be admitted to membership in the health council.

Health professions to be represented would, of course, include doctors, dentists, nurses, pharmacists, and hospital administrators. The spokesmen for the public-at-large could be chosen from among the farm, labor, veterans', women's civic and professional organizations, parent-teacher associations and members of the clergy and church boards. Governmental agencies concerned would include the county welfare board, the county health unit, the city health unit, the city or village council and the sanatorium commission. Voluntary organizations, such bodies as the Tuberculosis association, the Infantile Paralysis Foundation, the Cancer Society, the Crippled Children's association and the Red Cross, should send their delegates.

Promote Discussion and Sound Planning

There are two major objectives of a health council: (1) to bring together the interested groups for the purpose of promoting discussion, debate and interchange of opinions and the sound planning of health and medical care programs and (2) to encourage, stimulate, foster and support the establishment of health and medical care councils in areas as deemed advisable within each state.

To obtain these ends, the councils could survey the medical and health needs, determining the existing and needed facilities and personnel for meeting the findings of such a survey; recommend ways and means of providing adequate facilities and personnel to meet the constantly changing needs; disseminate as widely as possible information pertaining to health and medical care problems and programs; and conduct or promote such meetings as may be helpful in effectuating the program.

Echoing the AMA's original appeal for the cooperation of the medical profession in the establishment of these health councils, which is so vital to their success, the Committee urged in its report to the House of Delegates that the local medical societies lend their support to the project by appointing committees on rural health in each society, to work with the State Committee.

The report pointed out that the very live interest in the rural health problem on the part of the public indicates the need for active leadership by the medical profession. It further warned that lay groups are prepared to proceed with their own plans if the active interest of the profession is not soon forthcoming.

Delegates Approve Heart Program

Recognizing the fact that a program to control a disease which is responsible currently for one-third of all deaths in the nation should not lack public and professional support, the House of Delegates approved a report submitted by the Heart Committee, which outlined plans for the establishment of a Minnesota branch of the American Heart Association.

The Heart Committee, of which Dr. Frank J. Hirschboeck of Duluth is chairman, reported that it had been planning during the year to expand its efforts toward activating public interest in heart disease. At the request of the American Heart Association, the Committee has held several meetings to consider plans for the formation of a Minnesota Heart Association. Dr. Hirschboeck appeared before the Council of the Minnesota State Medical Association and requested its approval for the Heart Committee to petition the American Heart Association for a charter for the Minnesota branch. This approval was granted

and the Committee has since been considering the question of membership.

Present plans are based on a recent change in policy of the American Heart Association, the delegates were told. At first the AHA was interested only in scientific matters, research and education of physicians. Under the new policy, the AHA plans to broaden its scope of activities, to concentrate more on public health education. And in order to foster this program for the spread of information and the development of public interest, it is proposed by the AHA to have sectional or state Heart associations formed.

Members Include Physicians and Laymen

It is planned to extend membership not only to physicians but to members of other professional groups and to laymen, lay membership to be limited to less than fifty per cent of the total. The Committee noted in its report that Minnesota supplies a very satisfactory field for the formation of a Heart association chapter, since in this state the interest evidenced in heart disease has been as intensive as in any other community in the United States, if not more so. The interest of various organizations, such as the Minnesota Public Health Association, the American Legion, the Variety Club, the Alpha Phi sorority, and several others, has long been known. All have indicated their interest and willingness to do their share in advancing a definite research and education program. The Minnesota Heart Association will seek to co-ordinate and encourage the activities of all of these organizations.

An early meeting with representatives of the medical profession, interested allied professional groups and laymen is planned, at which time definite action for the formation of the Heart Association will be discussed.

Hear Railroaders' Benefit Plan

A cash sickness benefit system for railroad employes which became operative, July 1, and which will require the close co-operation of physicians, was explained to the House of Delegates by representatives of the Railroad Retirement Board. Benefits, the delegates learned, are payable under the Railroad Unemployment Insurance Act to qualified railroad employes when they are unable to work because of sickness or injury. Physicians are concerned in the program since in order to receive benefits an employe must submit a statement of sickness signed by his physician.

Only doctors of medicine are authorized to sign statements of sickness except when information furnished on the form is derived from current records of hospitals or institutions, in which case the hospital superintendent or institutional head may sign the statement.

Need Complete, Accurate Information

The need for complete and accurate information as called for by each item of the form was stressed in the report to the delegates. It is also expected that the doctor will enter an estimate of the date on which he believes the employe will have recovered sufficiently to resume work in his last occupation.

All disabilities which prevent railroad employes from working, regardless of how or where they occur, are covered under the program. It is estimated that the program will require about 650,000 medical examinations a year. Employes are free to choose their own doctors; and, since the Retirement Board is not liable for any charge in connection with completing the statement of sickness, the relationship between the doctor and the patient is not affected by this program.

There are two forms on which doctors are to provide medical information. The first, which is intended primarily for information at the beginning of an illness or disability, is the "Statement of Sickness." The second, intended to provide additional information when it is needed later on in connection with the same illness, is the "Supplemental Doctor's Statement."

Prompt Mailing Required

The form to be filled in by the employe in applying for sickness benefits and that to be filled in by the physician are combined on the application form, but if the physician considers the information he is entering to be confidential, that part of the form can be detached and mailed by him direct to the Board's Regional Office. Prompt mailing of the employe's form and the doctor's statement is very important. If mailing is delayed, the employe may lose benefits to which he is otherwise entitled.

Any employe who earned $150 or more in railroad employment during a calendar year is eligible to receive benefits if he applies for them

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Minnesota Academy of Medicine

Meeting of March 12, 1947

The regular monthly meeting of the Minnesota Academy of Medicine was held at the Town and Country Club on Wednesday evening, March 12, 1947. Dinner was served at 7 o'clock and the meeting was called to order by the president, Dr. E. M. Hammes, at 8 p.m.

There were forty-one members present.

Minutes of the February meeting were read and approved.

The secretary read a letter from Dr. H. Z. Giffin presenting his resignation from the Academy. However, upon motion, it was voted unanimously to place Dr. Giffin's name on the Honorary List of the Academy, and the secretary was instructed to notify Dr. Giffin of this action.

The scientific program followed. Dr. Harvey O. Beek, Saint Paul, and Dr. Vernon L. Hart, Minneapolis, each read an Inaugural Thesis.

EDUCATIONAL MANAGEMENT IN PSYCHOSOMATIC MEDICINE, WITH SPECIAL REFERENCE TO THE GASTROINTESTINAL TRACT

HARVEY O. BEEK, M.D.
Saint Paul, Minnesota

The purpose of this paper is threefold: (1) to call attention to the psychosomatic problem, especially in its relation to certain diseases of and symptoms of the gastrointestinal tract; (2) to advocate and define the concept of educational management in the treatment of these cases; (3) to present cases illustrative of this common problem and their management.

Psychosomatic medicine changes the traditional concept that disease is a fixed pathologic state. The traditional view, based on the precise pathologic studies of Virchow, explained the symptoms of disease as being a result of pathologic tissue changes which could be traced back to certain mechanical, chemical, or infectious factors, or to the natural process of aging. Psychosomatic medicine recognizes that certain symptoms and pathologic anatomical changes are the consequences of disturbed organ function which is associated with chronic emotional conflicts.

According to Fultons' belief, visceral changes are secondary to the mental state or neurosis, that positive mental and emotional states, concomitant with activity of the cerebral cortex, are accompanied by visceral changes also arising from cortical excitation. Another view supported by psychological data suggests that the visceral activity indicates a concomitant psychological vector, and that the neurosis is both mental and visceral change, and that they are inseparable.

Inaugural thesis.

It has been noted for a long time that functional disorders of long duration may gradually lead to serious organic disorders based on anatomical change. Common examples of this are the hyperactivity of the heart with resultant hypertrophy of the heart muscle, or hysterical paralysis of a limb which may lead, due to inactivity, to certain degenerative changes in the muscle. With the development of the psychogenic concept it has become evident there can be no sharp dividing line between functional and organic.

Alkan in 1930 was one of the early leaders to point out that organic disease could properly be studied by psychologic methods. According to his belief organic changes may be the final result of emotional disturbances within the field of the autonomic nervous system. He postulated that intrapsychic conflicts may be expressed by spasms of smooth muscle which secondarily lead to anemia of an organ, vascular stasis, dyskinesia, atrophy or infection. The result of this may be organic changes in visceral tissue or somatic structures, which of themselves, as terminal events, are irreversible and constitute the so-called organic disease.

Alexander and his group, through their psychoanalytic studies, have become convinced of the psychogenic origin of gastrointestinal disorders. It is their belief that the organic changes are the last link in a complicated functional chain of events with psychologic conflicts as the basic etiologic factor.

Intensive psychic and somatic studies of cases of peptic ulcer have produced marked evidence for the assumption that emotional conflicts of long duration may be the first step to a stomach neurosis which may result in an ulcer. Present electroencephalogram studies on ulcer patients are adding to this evidence by correlating the electroencephalogram findings with the personality study.

Claude Bernard indicated the importance of the maintenance of a stabilized internal milieu of an organism for its normal existence. The autonomic nervous system has the major role in the maintenance of this condition. Forces pulling in the opposite direction are equilibrated to give an appearance of the rest homeostasis of Cannon. An automatic response involved in the interest of homeostatic balance or as an expression of emotional behavior may become excessive and give rise to symptoms.

Emotional conflicts and abnormal tensions that cannot be expressed outwardly through normal channels are converted to symptoms and organic disease. These emotions become the source of excessive energy which, centered in the hypothalmic region, overflows on the nuclei of the autonomic nervous system. The diencephalon with its regulating influence upon both major divisions of the vegetative nervous system apparently serves as the distributor of the emotional components of disease. The cerebral cortex appears to transmit, under conflict and abnormal tension, stimuli to the area in

the diencephalon which sets up impulses responsible for secondary changes in function and structural change.

Grinker and Ingram have reviewed the evidence that there are controlling nuclei for the sympathetic and parasympathetic nervous systems in the hypothalmus and that these centers are not only under the controlling influence of the hypothalmus, but also of the hypophysis and cortex. Stimulation of the hypothalmic region will cause various sympathetic or parasympathetic responses which will disappear when the vagus or sympathetic nerves are cut. It is postulated that the tonus of the two nervous systems is regulated in the area, and it is apparent that emotional tension can affect either one or the other separately or both simultaneously.

The manifestations of disturbed autonomic nervous system are numerous and this discussion will be limited to the gastrointestinal tract.

It was the experience of the medical corps in the recent war that gastrointestinal manifestation replaced the "soldiers heart" of World War I. In my practice, in a charity clinic, and in an educational therapy class, it is by far the most common condition.

1. In my private practice 25 per cent of the patients seen have complained of gastrointestinal symptoms which have been diagnosed as functional.
2. In a charity clinic figures based on samplings showed approximately 40 per cent with these complaints.
3. In an educational therapy class of 150 members, 36 per cent gave gastrointestinal complaints as their main problem.

There is probably no other system which shows such fine shadings between functional and organic changes as the gastrointestinal tract. Long-standing emotional disturbances result in tissue changes as seen in the stomach, duodenal ulcers and the ulcerative lesions of the colon.

There are certain factors which contribute to making this area a logical endpoint for emotional tension: (1) the sheer length of the tract; (2) the abundant afferent and efferent nerve supply of the gastrointestinal tract; (3) the association of relief from physical discomfort; (4) the fact that it is subjected to a wide range of abuses and insults; (5) the demands made upon it for adjustment and accommodation; (6) the association of the tract—through the act of feeding—with the emotions.

Wolf and Wolff have shown in their monograph, "Human Gastric Function," that the gastrointestinal tract is a battle ground for conflicts between the body and the emotional state. They demonstrated that alterations in gastric function may occur in response to a very large number of stimuli, and that even in the case of drugs and other physical and chemical agents, the usual effects may be profoundly modified or even reversed by changes associated with the situation in which the subject found himself and his reaction to it. It was further shown that these functional alterations in the stomach, when sustained, lead to the appearance of distressing symptoms and structural damage.

In a group of 158 patients attending an educational therapy class the most prominent emotions found to be the apparent causative factors of the tension state were first, fear and anxiety, and next, hostility and resentment.

Wolf and Wolff's subject again demonstrated well the changes in the stomach in response to these emotions. Fear, giving a picture of pallor of the face with blanching of the mucous membrane of the stomach accompanied by reduced acid secretion; anxiety, showing hyperemia, hypersecretion, and hypermotility, with flushing of the face; hostility and resentment showing turgidity, engorgement, hyperacidity, and violent contractions. Sustained emotional tension revealed the changes in the stomach mucous membrane and the patient complained of cramps and diarrhea. The sensitivity of the stomach to pain from vigorous contractions increased at the times of hyperemia and engorgement.

The cases to be presented and discussed are given because:

1. The emotional and life situation of the patients is a dominating factor in their illness.
2. They are all cases with sustained emotional tension.
3. All cases showed more than one manifestation of autonomic nervous system imbalance.
4. In each case the emotional component was easily accessible.
5. All cases had failed to respond to accepted medical management.
6. They did respond to either educational management alone or the addition of educational management.

Case Reports

Case 1.—(Ulcer-like Syndrome) J. W. T. aged fifty-five, a married white man, was first seen in May, 1946, complaining of gas, gnawing sensation in the epigastrium, intolerance of many foods, weakness, and stating definitely that he had an "ulcer." He also complained of spells of rapid heart, fatigue, sweating, and "collapse." His symptoms first appeared in mild form between 1932 and 1934, and since then have been the focus point of his life. During this period he had seven gastrointestinal x-rays series, and two gall-bladder x-rays. One x-ray examination supposedly showed a small ulcer in the duodenum. A retrocecal appendix was removed in 1942. He failed to respond to the large number of sedatives, antispasmodics, diets, and interval feedings which his physicians tried. An attempt was made by a surgical consultant to explain his condition on a functional basis, but this he absolutely refused to accept.

When seen in May, 1946, he was hospitalized and kept on modified ulcer diet while an attempt was made to start educational therapy. This failed and he was discharged in five days. His symptoms continued and he spent a great deal of the summer in bed. In September he was again hospitalized, but again he refused to accept educational therapy and was discharged at the end of seven days. On October 9, he had such a severe attack of distress and tachycardia that he was returned to the hospital, where x-ray studies failed to reveal an ulcer. According to his statement he had reached such a low ebb that he was willing to try anything. From the moment that he was willing to admit his condition was functional and was willing to accept educational therapy, his progress was one of steady and rapid improvement. He was discharged from the hospital on October 30, on a normal diet, no medication, no activity restriction except the avoidance of excessive fatigue. He has continued to the present, free from distress, and has not missed a meal or work day in six months, a

record that had not been achieved in thirteen years. He is able to eat any foods, and does not avoid moderate amounts of alcohol. Under strain he does have mild spells of tachycardia and some "tight sensation" in the stomach, but he is able to break this immediately with the relaxing exercises that he has been taught.

The history revealed that the symptoms began during the depression years while the patient was guiding a financially unsound business. He is of Irish decent, of an explosive nature at times, and not given to controlling his emotions.

This case history shows a patient who for a period of fourteen years failed to respond to medical management for gastrointestinal complaints. With his improvement he realized that, after all, his condition was functional and that the advocated educational therapy did make sense. He also admitted that he had always hoped for some definite organic finding and that he had pounced on the one questionable x-ray with great hopes, but that the failure of diet to cure him had been a disappointment. This case well illustrates the change from medical management to educational management.

Case 2.—(Gastritis) E. G., aged twenty-three, an unmarried Mexican woman, was first seen in January, 1946, complaining of nausea, burning in the epigastrium, loss of weight, gas, distress after eating, and fatigue. These symptoms had a duration of six years with varying degrees of intensity. She also complained of spells of sweating, palpitation, and dizziness for three years.

During the period of six years she had been seen by seven different private physicians and had failed to respond to any of the types of therapy given.

The only significant findings on examination were spasm of the gastrointestinal tract and moderate tenderness in the ileocecal region. The x-ray examination showed a rather large stomach containing an excess of secretion and slight changes suggestive of gastritis.

She was treated intentionally as an out-patient on medical management until May, 1946, and continued to have the same complaints with no signs of improvement. In May, 1946, she was hospitalized for one month for strict medical management. There was no change in her symptoms or x-ray findings after this period. No attempt was made to get a history of her emotional situation.

In August, 1946, a detailed life and emotional history revealed that her father had become a drunkard and when she was nine, a brother took to drinking with resultant family drunken brawls. She had noted the appearance of a tight feeling in her stomach as the household tension developed, which was accentuated by each violent episode. Her brother was convicted of "white slavery" and at this time her symptoms increased and became permanent. She refused to marry a boy whom she was really fond of shortly before he went overseas. He was soon killed, and her symptoms became more marked. She had been unable to work for two years because of her distress.

She was of average intelligence and desired to raise herself above the level of her family.

After educational management was started in August, she responded slowly but well, and in two months was able to eat nearly all foods without distress, gained 5 pounds and obtained a position.

She gained sufficient understanding so that she volunteered that she could correlate her mother's asthmatic attacks with the home situations, and that she felt this asthma was of the same functional nature.

In this case it is seen that the patient failed to respond to treatment over a six-year period with seven different physicians. It is to be noted that no adequate history was taken during this time. This patient failed to respond to medical management as an in- and out-patient over an eight-month period, but did respond when educational therapy was started and the emotional aspect of her condition explained. This patient is still being followed.

Case 3.—(Duodenal Ulcer) E. M., aged fifteen, an unmarried negro girl (illegitimate), was first seen in September, 1946, complaining of gnawing pain in the epigastrium, nausea, vomiting, sweating, and weakness. These symptoms had been persistent for two years.

The patient was said to have had stomach distress ever since she was an infant. At the age of nine, her condition became more marked and she was taken to various clinics where the diagnosis of nervous stomach, gastroenteritis, and food intolerance were made. In September, 1945, because of a severe attack she was given a gastrointestinal x-ray at a city hospital, and a shallow ulcer crater about ½ inch in diameter was found on the posterior wall of the middle third of the cap of the duodenum. She was placed on diet and Sippy powders with only moderate relief. In September at another clinic she had an x-ray study and the findings were reported as showing an active ulcer with associated gastritis. She was continued on the same diet and also started on educational therapy. One month later she showed decrease in the size of the ulcer crater, and her improvement has continued. X-rays taken February 15, 1947, showed no signs of an ulcer crater.

In obtaining the history of her family and emotional life it was found that this had not been done before. The important points in the history revealed that she believed her father had died shortly after her birth. She lived with her mother, grandmother and aunt. There was constant friction in the home, which the patient realized caused her stomach to be upset. When she was nine her mother married a man whom she feared, and who refused to support and rejected the patient. At this time she had a severe attack of stomach pain and vomiting. She lived with her aunt. With the birth of each of two half-sisters she developed severe attacks and had to be taken to clinics. When she was fourteen she had her severest attack. This followed an attempt by the Welfare Board to urge her to return to her mother and stepfather and she lived for a period in fear that this might be brought about. It was at that time the ulcer was found.

This case reveals a fifteen-year-old Negro girl in whom a definite ulcer had been recognized for one year. It had not responded to medical management, in the year, but did respond when educational therapy was added to this regime. The periods of exacerbation of her symptoms are easily correlated with the increase in the emotions of fear, anxiety, and resentment.

Case 4.—(Duodenal Ulcer) R.R., aged sixty-two, a married white woman, was first seen in November, 1946, complaining of typical ulcer symptoms, insomnia, and restlessness. She stated that she had been on ulcer regime of restricted diet and medication for twenty years, and that she had not been free of chronic distress during the last fourteen years.

X-Ray studies on November 4, 1946, showed an active duodenal ulcer with marked deformity.

She was continued on medical regime and educational management started. She soon experienced relief and on November 18, 1946, the x-rays showed marked improvement with no evidence of the previously demonstrated ulcer crater.

The history revealed this person to be a chronic worrier, with marked periods of anxiety.

This patient has not been followed very long, but she is enjoying more comfort than in the past fourteen years and has recently gone through a period of distress caused by a tragic family death, which she states should have made her stomach symptoms almost unbearable. As in the other cases the only change in treatment was the addition of educational management.

Case 5.—(Ulcerative Colitis) G. L. D., aged forty-five, a married Jewish woman, was first seen in August, 1945, complaining of bloody diarrhea, tenesmus, abdominal cramps, weakness, loss of weight, insomnia, fatigue, and

dizziness, and sweating. Her first symptoms appeared as mild cramps and diarrhea in 1934 and increased in severity until 1941 when her physician made the diagnosis of ulcerative colitis. She was placed on various medical regimes until August, 1945, when she was referred to a surgeon.

Proctoscopic and x-ray examinations confirmed the diagnoses. Examination showed marked abdominal tenderness and moderate rigidity.

Emotional history revealed financial insecurity, numerous family conflicts, anxiety over her husband and children, one of whom was a marked behavior problem.

She was hospitalized from August 28 to December 16, 1945, on medical management and educational therapy. She made slow and steady improvement. After her discharge she continued educational management until April, 1946, when she returned to her home in Detroit to face unchanged conditions. She was able to do this and handle difficult situations without an exacerbation, and recent letters state that she is doing well at the end of one year.

This case is of importance because it shows a typical case of ulcerative colitis which was referred to a surgeon for operation. The surgeon recognizing the emotional component placed the patient on educational management, instead of surgery.

Case 6.—(Diarrhea) G. M., aged forty-two, a married white woman, was first seen in October, 1945, complaining of occasional diarrhea, abdominal cramps, tachycardia, and dizziness. Her symptoms had been present three years.

Examination was negative except for marked spasm and tenderness of the lower gastrointestinal tract.

History showed she had married a man twenty years older than herself. When she discovered that he drank, her symptoms appeared. She found that the sight of a drunken man or the act of merely walking by a parlor seeing people drink would bring on a violent attack of diarrhea. She had failed to respond to diet and sedation but did respond to educational management and is free from diarrhea.

This case furnishes a good example of the reflex action established by emotion, the strong feeling regarding drink. It appears as a potential case of ulcerative colitis without educational management.

Comment

It is interesting to note that, in a number of ulcer patients from the same group now being studied, the figures show that patients on continued educational management after cessation of the ulcer regime are less likely to have recurrence of symptoms, than those in whom this therapy is not used, the medical management in these cases being modified ulcer diets and antiacids, or protein hydrolosate.

In none of these cases reported was a glucose tolerance study made, but in some of the group this is being done, and a low curve with a two-hour drop to 55-60 mg. is being found, the degree depending on the severity of the emotional problem. This is consistent with the studies made on psychoneurotic soldiers.

Accepting one of the theories advanced for the role which the autonomic nervous system plays in the production of these conditions, it is easy to understand why the usual medical management of these patients fails. Once the emotional state has caused the regulating mechanism to respond in this altered manner, and established an emotional reflex, the condition cannot be changed until the emotional component has been corrected. The re-establishment of the emotional-autonomic nervous system relationship is the purpose of educational management.

Recognizing this conflict or tension pattern, the internist has been criticized for not more frequently seeking psychiatric consultation in the handling of these cases. It is felt that this consultation is impossible because of the terrific case load, and that in the majority of cases it is not necessary but might be unwise treatment.

Educational management as advocated is a means for handling these functional problems which is within the reach of any physician or surgeon who is willing to take the time with his patient, and who is willing to devote himself to understanding the emotional state and response of his patients.

These patients are suffering from a condition which is due to their own emotional response to situations and their condition is usually accompanied by a general state of tension. A study of a group of patients in an educational management class showed that nearly all of them had more than one manifestation of autonomic imbalance such as sweating, tachycardia, dilated pupils. They must be made to understand their problem, the importance of the emotional involvement, and the association of relaxation.

Patients before being elegible for this form of therapy must be thoroughly studied and all complaints investigated. There must be no doubt in the mind of the examiner as to what the patient's condition is. Any doubt about the mental status of the patient has to be evaluated by a psychiatrist. It has been pointed out that the problems of these patients must be simple and on the surface.

Educational management is exactly what its name implies, education in understanding oneself and one's problems, and that most important tool, relaxation. The program must be carried out by developing the two phases at the same time.

The patient should be presented with the results and facts of the examination in a manner any intelligent person is entitled to. Any doubts about his condition or questions pertaining to it must be satisfied. A patient whose attitude is "Yes, Doctor, but" will not respond as long as he maintains that attitude. The best results are obtained in group management, although a modified program can be carried out individually. In attending a group the individual gets things that he cannot when handled alone. He quickly grasps certain very obvious facts. The presence of many others assures him that, contrary to his belief, he is not the only person in the world with a functional problem. The most important step is in making the patient realize that his ailment is just as real as a definite organic disease, in making him see that there is no more shame, stigma, or disgrace in admitting he has a functional condition, than there would be in admitting he had a broken leg or diseased heart. In the group he learns that functional conditions are not respectors of persons, that they may plague the rich as well as the poor; those of higher intelligence levels and those of lower; the laborer and the man behind the desk. In the group he has the opportunity to watch the progress of other individuals in the conquer-

ing of their problems; he has the opportunity of talking with them and learning at first hand of their progress and does not have to rely on the statement of the physician. This is one of the extremely valuable facts in developing his confidence. He learns that the physician and the group furnish him tools, but that he alone can get himself out of his difficulty. It is made clear to him that his group attendance is not compulsory, that he must want this type of therapy, that the results depend on his desire to get well.

In the group his educational process consists of showing him, by means of discussion in simple language, something of the physiology and anatomy of the body. He has to learn that emotions can, through a chain of events, be converted into changes in function that may even result in a structural change which produces his symptoms.

As important as understanding the effects of emotions is understanding the art of relaxation. This is taught at the same time by having the group follow the physician through a simple series of exercises. The principle of these is the simple contrast between tensed and relaxed muscle groups, and a simple form of mental relaxation.

The patient is encouraged to discuss openly in the group his problem and his progress in handling it.

These patients are taught not to believe that all conditions are functional, that organic and functional can coexist, that while they may have a functional condition they may acquire some other, and that new symptoms must be explained by their physician.

A question has been raised as to whether or not this form of therapy is not an encroachment on the field of psychiatry. It is felt that it is not. There is no attempt made to interpret dreams, to use uncovering technique, psychoanalysis or any other procedure which rightfully belongs to the trained psychiatrist.

The statement has been made that because of its simplicity this type of therapy could be abused. That is correct. It could be degraded into a series of pep talks and a modified form of "laying on hands." If abused, it could be very dangerous. Intelligently used, it appears the ideal solution for handling a great many functional cases.

The cases cited are from an educational management group in Saint Paul, and opinions expressed about this therapy were formed in the management of this group.

In summary it is felt that educational management is a definite form of therapy in the field of psychosomatic medicine, and that the problem of handling these patients resolves itself into that of handling the whole man rather than his ulcer, gastritis, or colitis.

A British doctor, Crookshank, stated, "It always seems to me odd in the extreme that doctors, who, when students, suffered with frequency of micturition before an oral examination, or who when in France had actual experiences of the bowel looseness that occurred before action, should persistently refuse to seek a psychological correlative—not to say an etiological—factor when confronted with a case of functional enuresis or mucous colitis. I often wonder that some hard-boiled and orthodox clinician does not describe emotional weeping as a 'New Disease,' calling it paroxysmal lacrymation, and suggesting treatment by belladonna, astringent, local applications, avoidance of sexual excess, tea, tobacco, fluid intake; proceeding, in the event of failure, to early removal of the tear glands. Of course, this sounds ludicrous. But a good deal of contemporary medicine and surgery seems to me to be on much the same level."

Discussion

DR. MOSES BARRON, Minneapolis: Dr. Beek's paper was a very instructive one. He touched upon a field in medicine that is not sufficiently emphasized in our medical schools. I have always felt that it is very important to obtain a careful history from the patients so as to get a proper background in devising treatment. I myself have used a similar method in the care of my gastrointestinal patients to which I do not give any name such as education. I simply consider it as a method of getting the co-operation of the patient in carrying out the treatment. I have tried to emphasize this approach to the students and have insisted on careful histories of the patients. In the treatment of ulcers, for example, I carefully go over the entire field of management with the patient, pointing out the importance of regulating the diet, the reason for certain foods being used, the reason for the various medicines used, and just what we try to obtain by the management.

The importance of the psychic factors is always emphasized, the importance of eliminating tension and excitement. I have found the procedure a very satisfactory one. We realize that about 40 to 50 per cent of our patients have complaints with no organic basis that can be demonstrated. As Dr. Beek has well said, the complaints and symptoms, whether organic or functional, affect the patients just the same. They suffer just as much and often more from functional ailments than they do from definitely organic lesions. A careful discussion with the patient will help toward an understanding of just what is involved and will bring about better results in treatment.

DR. C. N. HENSEL, Saint Paul: I am very glad to rise to my feet and give commendation to Dr. Beek for bringing this topic before the Academy.

I have been a member of this organization for some thirteen years, and this is the first time I can recall such a topic being presented here.

In view of so much stress being presently given to psychosomatic problems, I think it is a very timely subject and very well presented. In my training as a medical student I was indoctrinated by the force of the pathological thinking of that time, namely, that unless you could find a lesion in an organ during life or at the autopsy table after death, no disease existed. Therefore, after graduation and in my early years of practice, I sought for the pathological lesion, applied the proper treatment and expected the patient to get well.

When patients did not improve or get well, I was disappointed and I then began to investigate further and inquire what was wrong. Often I would discover that, in addition to their complaints of sick organs, these patients were carrying a flock of bothers and troubles, that they had not mentioned when I first obtained their history; and so, without any training in psychoanalytical technique, I attempted in a practical common-sense way to resolve some of these bothers. If I was successful in so doing, then these patients seemed to im-

prove, and so I became interested in the relationship of emotions and feelings to disease.

Thereafter when a medical problem would not be resolved by medical management, I would inquire further and sometimes I obtained a frank discussion by the patient; more often, I would be met by evasion or denial that there was anything wrong emotionally in the patient's life.

After repeated conferences, I might uncover factors that were denied at the first visit. Personal pride and an instinctive sense of protecting one's weaknesses or inadequacies, seemed to be the greatest hindrance in preventing such patients from freely discussing their basic problems with the physician. And so, in order to relax that pride, I would assume that certain problems (which I had already come to suspect) existed in that patient's life and proceed to discuss them as though they were facts. With this lead, uncommunicative patients might begin to talk about their problems and thus find relief from inner tensions. I am convinced that it is either pain or fear which most often drives patients to their doctor. The pain motive is definite and tangible, usually localized and inevitably leads the doctor to the proper diagnosis and treatment. The fear motive is usually hidden and the patient is unable to express it; often such patients come with some unrelated complaint, hoping, perhaps, that in the course of the examination the doctor will discover whether there is a cancer of the uterus or the stomach or whether the palpitation of the heart is serious.

Many patients who consult a doctor are inadequate to their life's situation, are unable to cope with their problems, and they become dissatisfied with what they are doing and unconsciously resort to perpetual complaining as sort of an excuse for their inadequacy. To such people the doctor must be not only their physician but their guide and leader who helps them with their problems. You cannot obtain an informative history from such patients in ten or fifteen minutes; you must let these people talk and tell their story in their own way. Confessions are made slowly and painfully and take time if you are to obtain the crux of what is bothering the patient. If you choke them off as too time-consuming or discursive, you drive back deep within them the trouble which is seeking an outlet. Such patients need understanding, and a kindly guiding hand to help them with the revelation of their problem which oftentimes they are aware of themselves, but too shy or too ashamed to reveal to others.

Dr. Beek has chosen the educational class method because it saves time and he can deal with a larger number of people with the same expenditure of effort. For myself, I have liked the person-to-person relationship and felt I could secure better results in this way. Whichever method you have used and found best, you yourself can use best. I can recall an oration by Dr. Cannon, of Boston, at a meeting of the American College of Physicians in 1938 on "The Role of the Emotions on Bodily Functions and Disease," in which he deplored the fact that medical teachers were still bound by Virchow's ideas on cellular pathology and Freud's ideas of the unconscious. He felt that medical schools should put more stress on emotional factors in the study of disease.

Dr. Beek (in closing): I want to comment on one of the things which Dr. Hensel mentioned; and that is I do not wish to create the impression that the individual is forgotten. We must have some personal contact with them and that is done at other times than in the class. We must maintain personal contact with our patients.

CONGENITAL DISLOCATION AND CONGENITAL SUBLUXATION OF THE HIP

Etiology and Roentgenographic Features

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Congenital dislocation and congenital subluxation of the hip joint are two separate and distinct clinical entities and each may be the cause of serious disability. The two conditions should be considered together because they have the same etiology.

Classical congenital dislocation of the hip is secondary to a primary genetic dysplasia of the hip, or flat acetabulum, and develops during intra-uterine life, or in the course of the first or second year of postnatal life. Dislocation is a consequence of the primary dysplasia or "flat socket"; it is a secondary and incidental phenomenon. "Dysplastic acetabulum" is a term now generally accepted, and means a congenital and genetic anomaly of the acetabulum, with hip-joint instability and incongruity. The primary anomaly is not limited to the acetabulum, but involves all mesodermal structures of the hip joint. Aplasia or hypoplasia of the roof or buttress of the rim of the acetabulum causes a flat socket which is the important expression of the dysplasia of the pelvis and hip joint. Dislocation of the femoral head may result because the hypoplastic and insufficient roof of the acetabulum lies in the axis of transference of forces of body weight and muscle contraction. Acclivity of the roof of the socket is the principal anatomical feature and a constant defect in congenital dislocation of the hip (Fig. 1).

Actual dislocation can, but need not necessarily, occur. Primary dysplasia of the hip without dislocation, but with varying degrees of subluxation, is a distinct clinical entity. The two entities, with and without dislocation, are identical in their etiology but are different in their clinical, radiological and pathological manifestations. Either entity may exist as a unilateral or bilateral lesion of the hip joint; frequently the two entities are present in a single patient with bilateral hip-joint dysplasia (Fig. 2).

Hip dysplasia with potential dislocation in a child one or several months of age may, if not properly treated, become a complete dislocation before or soon after the child starts to walk. Dysplasia of the hip with dislocation was at some previous period a potential dislocation; but hip dysplasia without dislocation does not necessarily progress to a complete or classical dislocation. Whether or not a gradual transition occurs from potential to complete dislocation depends on the degree of hypoplasia of the acetabular rim, the sex, the position *in utero*, and the forces of muscle contraction and weight-bearing. It is now an established fact that dysplasia of the hip with subluxation, which was thought to be only a precursor of the classical dislocation, may remain as a permament deformity with characteristic clinical symptoms and roentgenographic findings.

Inaugural thesis.

In the textbooks, the chapter on congenital dislocation of the hip is incomplete, since only the entity "dislocation" is considered. The entity "subluxation," which is more common, and frequently more disabling than the

Fig. 1. Roentgenogram of patient twenty years after manipulative reduction of congenital dislocation of the left hip. Note that the principal anatomical feature and constant defect in congenital hip is acclivity of the roof of the acetabulum. The patient is now twenty-five years old. There is no evidence of traumatic arthritis which is inevitable at a later age. Secondary roentgenographic features of maldevelopment of the femoral head and neck are apparent; also the adaptive physiological sclerosis of the roof of the inadequate acetabulum.

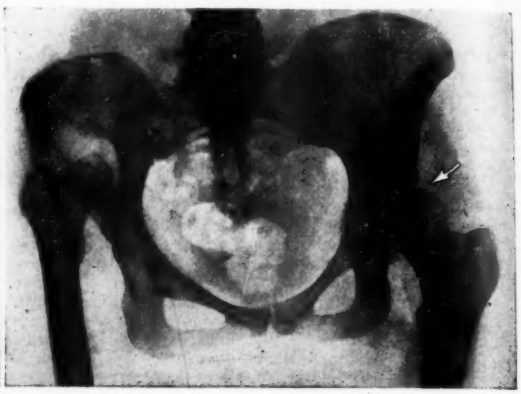

Fig. 2. Patient has always been disabled with a unilateral hip dislocation. She is now forty-six years old, and has experienced pain and stiffness during the past year in the opposite "normal" hip. Note the characteristic signs of primary hip dysplasia of the "normal" hip with early traumatic osteoarthritis. Careful study of dysplastic acetabula shows that bilateral cases outweigh the unilateral, which is the opposite of statements made by earlier authors.

classical dislocation, should be included. The terms "dysplastic acetabulum" or "hip dysplasia without dislocation," "preluxation," "potential dislocation," "inadequate acetabulum," "incompetent acetabulum," "flat socket," and "subluxation" are synonymous, since they are expressions for a single entity.

Heredity Conditions

Many authors have reported genetic occurrence in families in about 20 per cent of all cases of congenital hip dislocation. A notable and fundamental contribution to our knowledge of congenital dislocation of the hip was reported by Faber in 1937. Previous to Faber's work, all genetic investigations were based on the concept of a "dislocation gene" or diseased chromosome. The only "patients" in the genealogical studies were those with classical dislocation. Faber's research was based on the concept that the heredity, upon which dislocation of the hip depends, is not itself the hip dislocation, but, instead, is a primarily existent defect or acetabular anomaly which is in general designated as a flat socket. Because of a flat socket, an actual dislocation of the joint can, but need not necessarily, occur. There is no "dislocation-gene-conditioned chromosome," but there is a "hip-dysplasia gene." The hereditary factor is not the dislocation, but is a primary hip and acetabular dysplasia. Congenital hip dysplasia with dislocation and with subluxation are clinical expressions of the same gene-conditioned chromosome. They have the same heredity.

Roentgenographic consanguinity investigations were made by Faber on all living members of the families of ten children with congenital dislocation of the hip (Fig. 3). The ten children were considered ostensibly sound in their heredity by those who accepted the concept of a "dislocation gene." From these studies, Faber demonstrated that dysplasia of the hip joint without dislocation was three times as frequent as was classical hip dislocation. In a total of ninety-eight cases of primary hip dysplasia, twenty-five were with dislocation and seventy-three without dislocation. The occurence of primary acetabular dysplasia is, therefore, four times as frequent as had been supposed up to the present time, from the sole consideration of hip dislocation. In some of the families, only a few individuals manifested classical dislocation, while many showed hip dysplasia with subluxation. In one family, no dislocation was observed although many flat sockets were demonstrated. Not all apparently normal individuals were genetically sound. Some patients with hip dislocation had parents who were normal in (phenotype) appearance, but roentgenographic studies showed one of the parents to have a flat socket. The affected parent, although clinically normal, was a latent carrier of the gene.

Variations in the manifestation or expressivity of the gene indicate that other conditions are active in determining the penetrance of the gene, and thus the expression of the character. Under the influence of function, a growing child with hip dysplasia without dislocation may in adolescent or adult life present a spontaneously healed or normal hip joint; the apparently normal individual would be genetically abnormal and a conductor or latent carrier of the "hip-dysplasia" gene. In many instances, it is not possible to measure the exact environmental condition which can affect the gene action. Genes primarily active in the development of a trait may act differently under various genotypes (genic milieu). A trait develops as the result of the interaction of

several gene pairs; and, if one of these pairs is different, the primary gene may not be able to produce a trait as completely or as incompletely as it could under the other genic complex. Some genes are secondary in their nature of action, in that they modify the action of the gene pair primarily associated with the trait. A true genetic history cannot be gained from a study limited to classical dislocation, since this expression of the gene occurs only if the environment, genic and otherwise, is proper for that complete expression. Only by roentgenographic consanguinity studies can a true genetic picture with all the variations of the penetrance and expressivity of the gene-conditioned chromosome be gained.

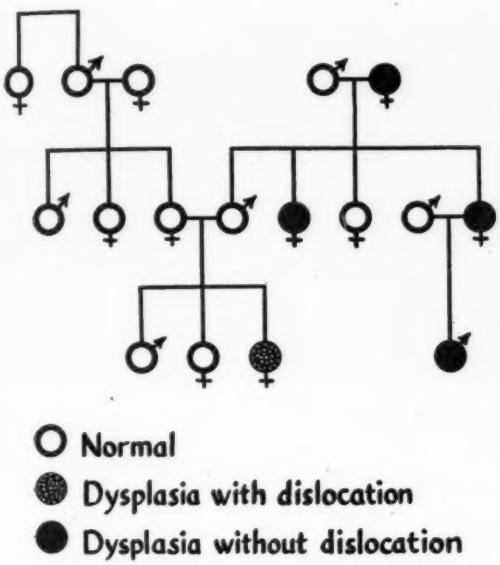

Fig. 3. One of Faber's roentgenographic consanguinity studies shows that in the family of the mother of the patient no carriers were found, while in the family of the father four carriers of the primary hip dysplasia without dislocation were found. (Reproduced from Stammtafel 8. Zeitschrift für Orthopädie, 66:160, 1937.[3])

The sex ratio of the total number of dysplasias approached the universal average, showing that there is, after all, not such a very great difference in the dysplasias of the hip joint between the sexes. The sex ratio of the total number of dysplasias with dislocation, however, revealed a preponderance of dislocations among the female sex. The ratio between the sexes did not vary from previously reported investigations on great numbers of cases, which revealed a ratio of female to male, of six to one. In the female, the dysplastic hip can lead much more easily to complete dislocation than in the male. This constant sex distribution is understood if it is true that a sex-conditioned structure of the pelvis exists—the female having a more perpendicular innominate bone and a shallower acetabulum. The phenomenon of female-sex predominance with actual dislocation requires further investigation.

Sex linkage in the hereditary pattern does not exist, because the genealogical trees show transmission of the genetic character of hip dysplasia from father to son. The dysplasia gene is transmitted usually only from one of the parents, and a recessivity of the genes predisposing to primary dysplasia of the hip is not probable. Hip dysplasia is due to a dominant gene.

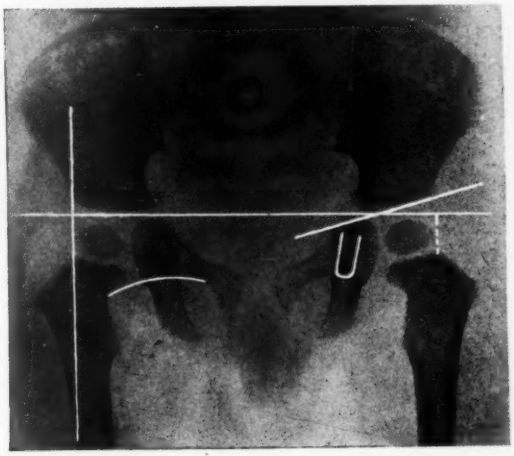

Fig. 4. Roentgenographic study of a normal hip (aged two years). A horizontal line is drawn on the roentgenogram through the clear areas in the depths of the acetabula, which represent the triradiate or Y cartilages. This line is called the Y line. A second vertical line is drawn through the lateral border of the acetabulum and the Y line. Normally the capital epiphysis lies below the horizontal line and within the lower medial quadrant formed by the Y and vertical lines. The angle of incidence of the roof of a normal acetabulum is about 20 degrees. This angle is formed by the junction of the Y line with a line passing from the depth of the socket at the Y line through the lateral border of the acetabular roof.

In case of unilateral hip-joint dysplasia, the vertical line is drawn on the normal side; and on the opposite side a parallel line is drawn at an equal distance from the mid-line.

In hip dysplasia without dislocation, but with varying degrees of subluxation, the capital epiphysis lies below or partially above the horizontal or Y line, but lateral to the vertical line. In hip dysplasia with actual dislocation, it lies above the Y line and lateral to the vertical line.

Note Shenton's line and the tear-drop. Also note the line which measures the distance from the most proximal shadow of the diaphysis to the Y line.

Mendelian ratios cannot be predicted in human families because the genotypes are not known at the time of mating, and the offspring do not occur in numbers great enough to fulfill the mathematical expectancy.

Roentgenographic Features of the Normal Hip

There is no one particular rotentgenographic form of hip joint to be exclusively designated as the normal. There is a range of normals, since there are numerous variations which certainly do not fall outside the classification of the normal. A range of normalcy so generous and wide will be recognized in order to eliminate error which would necessarily result from a narrow and rigid definition of the normal.

The following description of the anatomical and roentgenographic appearance of the normal hip is quoted from Wiberg:

"The acetabulum of the hip joint is a hollow which embraces 170 to 175 degrees of a sphere, and whose opening looks forwards, outwards and downwards. Lining the circumference of the hollow and enclosing the acetabular fossa is the lunate surface, a horseshoe-shaped surface with an anterior and posterior horn which articulates with the head of the femur. Articular cartilage is only found on the lunate surface. The acetabular fossa is filled by the ligamentum teres and fat tissue, and continues in front and below into the obturator foramen by means of the acetabular notch (incisura acetabuli). Attached to the bony margin of the acetabulum and increasing the depth of its cavity is the cotyloid ligament, otherwise known as the labrum glenoidale or limbus of the hip joint. Its inner surface, which is concave, constitutes a direct continuation of the articular cartilage in the acetabulum; its outer surface is convex. The capsule is attached superiorly to the bony margin of the acetabulum outside the attachment of the cotyloid ligament, and consequently there is a space between the two. At the acetabular notch, the cotyloid ligament continues into the transverse ligament.

Fig. 5. Roentgenogram of a normal newborn (aged one day). Note the acetabular index.

"The femoral head forms about two-thirds of a sphere and is practically spherical in shape. Two-thirds to three-quarters of the head are received into the acetabulum and cotyloid ligament.

"The roentgen picture of an adult hip has a number of characteristic features (Fig. 6). As a rule, the acetabulum appears as a practically circular segment. The upper part, the roof, runs practically horizontally, with the vertex of the concavity lying almost directly above the center of the head. The inferior part of the acetabulum, the floor, lies practically vertically, and corresponds anatomically with the acetabular fossa. The transition between these two parts of the joint cavity is marked by a step. At the same time the bottom of the acetabular fossa, the acetabular floor, gives rise to the outer side of the formation which is called the U figure, or the tear figure, whose inner side is formed by the bony border of the small pelvis. That this is the way the U figure is formed has been proved by Werndorff, who made it disappear in the roentgen picture by sawing out the bottom plate of the acetabular floor.

"The bone in the acetabular roof nearest the articular cartilage is comprised of a thin layer of cortex which appears as a dense zone in the roentgen picture . . . (Fig. 6).

Fig. 6. Note the characteristic features of primary dysplastic acetabulum (Calot's half-citron socket). There is physiological adaptive sclerosis of the acetabular roof. The patient's complaints were hip fatigue and a mild limp when tired. Symptoms were completely relieved by rest and change of occupation. The opposite hip is normal. The patient is a female in the period of early adult life. Her sister is disabled with a classical hip dislocation.

"If the line of the inner curve of the neck is extended, it will continue along the upper border of the obturator foramen—Shenton's line (Fig. 4).

"Children show a number of characteristic details in the roentgen picture, due to the incomplete ossification of their joints (Fig. 4). The cartilage connecting the three pelvic bones in the acetabulum appears as a gap, and because this cartilage has the shape of a Y anatomically, it is called the Y (or triradiate) cartilage . . . therefore . . . the line which is drawn through both the gaps (is known as) the Y line. If the cartilaginous area is broad, it may be difficult to know where to draw the Y line. . . . The bony part belonging to the ischium (is selected) as a definite point, and the line (is drawn) so that it touches it. As long as the epiphyseal nucleus is still separated from the rest of the neck by an epiphyseal line, the most medial part of the diaphysis of the neck looks like a spine, and is called the spine of the neck."

Proper roentgenographic technique is essential to prevent distorted views and erroneous measurements. The patient must be relaxed and placed flat on his or her back. The lower extremities should be in contact, the hips extended, and the patellae facing directly forward. The roentgen tube must be centered in the mid-line of the body and directly over the superior border of the symphysis pubis.

Primary Roentgenographic Features of the Dysplastic Hip

Radiographic diagnosis of hip dysplasia without dislocation is very difficult during the first months of life, and the condition is rarely recognized except where the

routine examinations of the newborn are made. Most often it is dislocation of the opposite hip which leads to its discovery. Putti recognized and treated by his abduction method a dysplastic hip without dislocation

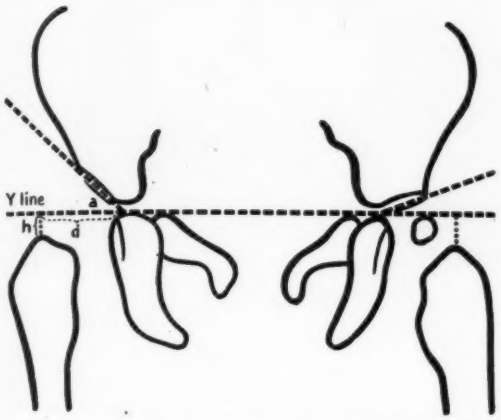

Fig. 7. Hilgenreiner's measurement. Note the Y line, acetabular index (a), high position of the diaphysis as measured from the most proximal shadow of the diaphysis to the Y or triradiate line (h), increased distance from the most proximal shadow of the diaphysis to the acetabular floor (d). (Reproduced with slight changes from Abbildung 1. Zeitschrift für Orthopädie, 66: 151, 1937.[8])

in a child only thirty-four days old. Unless dislocation is present on the opposite side, it is advisable to wait until the third or fourth month before reaching a definite conclusion; then the ossification center of the femoral head is visible in the roentgenogram and the possibility of error is reduced.

Hip dysplasia or "flat socket" refers not only to the steep acetabulum, but also to all joint-forming parts of the hip joint. However, the primary anatomical and roentgenographic feature of hip dysplasia is the abnormal acclivity of the roof of the acetabulum, which increases the angle of incidence of the roof of the socket. The acetabular index is the angle formed between the roof or iliac portion of the acetabulum and a horizontal line passing through the Y or triradiate cartilages (Fig. 4). Normally the acetabular index in a child is about 20 degrees. The angle is increased to 30 or more degrees in dysplasias (Fig. 7). Kleinberg and Lieberman studied the angle of incidence of the roof of the acetabulum and found the average angle of incidence in the normal newborn to be 27.5 degrees (Fig. 5), and at two years of age 20 degrees (Fig. 4). The angle was 37.5 degrees at the age of two years when the hip presented dysplasia with dislocation. The authors stated that if the angle of incidence is above 30 degrees in an infant, a dislocation probably will develop (Fig. 5). The flatness of the inadequate and incompetent acetabulum can further be proved through the increase in the radius of curvature where the centrum of the sector, which the acetabulum presents on the roentgenogram, goes off laterally, instead of, as in the normal, lying somewhere in the middle of the head of the femur (Calot's half-citron shape) (Fig. 6).

Besides all degrees of subluxation of the femoral head, from the imperceptible to the extreme or potential dislocation, the following features, which are an integral part of the primary dysplasia, should be noted:

1. Hypoplasia of the pelvis.
2. Hypoplasia of the head and central diaphyseal end of the femur (observed before puberty).
3. Delayed appearance and hypoplasia of the epiphyseal ossification center of the head of the femur.
4. Disturbance of Shenton's (obturator-coxofemoral) line.
5. Delayed bony bridging of the ischiopubic synchondrosis.
6. Increased distance of the most superior shadow of the metaphysis or neck of the femur from the acetabular floor or tear-drop shadow (if it is present).
7. High position of the diaphysis as measured from the most proximal shadow of the diaphysis to the Y or triradiate line.
8. The increase in the distance from the shadow of the most medial part of the metaphysis of the neck, which looks like a spine and is called the spine of the neck, to the acetabular floor, or tear-drop, and the decrease in the distance to the Y line.
9. Frequently a classical dislocation of the opposite hip.
10. The position of the limbus cartilage and the relation of the cartilaginous acetabulum and capsule to the femoral head as shown by arthrography.

Putti, one of the greatest authorities on hip dysplasia without dislocation, or preluxation as he called it, depended on the following triad for diagnosis (Fig. 7):

1. An increased distance between the upper femoral diaphysis and the acetabular floor.
2. Hypoplasia or delayed development of the epiphyseal nucleus of the femoral head.
3. An abnormally steep or short acetabular roof.

Secondary Roentgenographic Features of the Dysplastic Hip

Because of the repeated trauma resulting from abnormal sheering forces, mechanical instability, and incongruity of the dysplastic hip, secondary changes are added to the primary anatomical and roentgenographic features. Abnormal development of bone and soft tissues, vascular changes and arthritic sequelae are the result. These changes may be listed as follows:

1. Increased subluxation when compared with previous studies.
2. Delayed development of the epiphyses.
3. Delayed fusion of the epiphyses.
4. Maldevelopment of the femoral head and torsion or anteversion of the femoral neck (Wolff's law).
5. Increased sclerosis of the acetabular roof. The degree of sclerosis is in direct proportion to the degree of maldevelopment of the acetabular roof—physiological adaptive sclerosis (Fig. 6).
6. Coxa valga luxans (Klapp).

Fig. 8. Note the characteristic features of hip dysplasia with added secondary changes of traumatic arthritis, manifested by loss of joint space, sclerosis, cystic areas of rarefaction, double acetabular floor, osteophytic deposits, and capital drop. The patient is now sixty years of age and walks with the aid of a crutch. Her mother was disabled with classical hip dislocation.

Fig. 9. Note the characteristic features of primary hip dysplasia with acclivity of the acetabular roof and subluxation. Secondary changes of traumatic arthrities with loss of joint space, sclerosis, cystic rarefaction, and double acetabular floor have been added to the primary features. The patient's onset of symptoms had occurred six years previously, with hip fatigue and limp. One year previously severe pain, loss of motion, and deformity developed. She was totally disabled for work, and was not relieved by conservative measures. The opposite hip presents a very mild expression of dysplastic acetabulum. She has a sister disabled with bilateral hip dysplasia, with dislocations reduced in 1903 by Dr. Adolf Lorenz (Fig. 10). Arthrodesis of the hip was advised and performed.

7. Osteochondrosis, coxa plana, Legg-Perthes disease, or osteochondritis deformans coxae juvenilis.

8. Traumatic hypertrophic arthritis of the hip joint or malum coxae senilis with: (a) narrowing of the joint space; (b) osteophytic deposits, capital drop, and double acetabular floor; (c) sclerosis of bone and areas of cystic rarefaction involving the weight-bearing areas of the acetabulum and femoral head (Figs. 8-11).

9. Capsular adhesions, constriction and hypertrophy.

The author is aware of the fact that coxa plana or Legg-Perthes disease does not necessarily have a dysplastic acetabular background. He has observed several cases of coxa plana develop in clinically and roentgenographically normal hips. The acetabular changes were adaptive and developed secondarily to the deformed head. However, the author believes that primary dysplasia of the acetabulum may be the precursor of a group of cases with clinical findings and roentgenographic features that are indistinguishable from cases of coxa plana of unknown etiology. This problem should stimulate investigation.

Preiser in 1907 presented his theory that development of osteoarthritis in the hip was due to poor adaptation between the head and the joint cavity. Wiberg in 1939 conclusively demonstrated the correctness of Preiser's theory. He presented roentgenographic studies of nineteen cases with primary hip dysplasia before and after the development of secondary changes of osteoarthritis.

The author believes that osteoarthritis of the hip, or malum coxae senilis, is frequently traumatic arthritis and develops because of anatomical incongruity and instability of a primary dysplastic acetabulum (Figs. 8-11). He has studied twenty patients who had disability from dysplastic acetabula. Each patient had one member of the family disabled with classical congenital dislocation of the hip. The author's first case (Fig. 9) was recognized in 1935. The patient's sister had congenital dislocation of both hips (Fig. 10), which were reduced by Dr. Adolf Lorenz in Chicago in 1903. This patient with hip dysplasia without dislocation, but with secondary traumatic arthritis, was being treated for tuberculosis of the affected hip.

Roentgenographic Differential Diagnosis

The following list of hip-joint lesions may at times require careful study for differentiation from primary hip dysplasias:

1. Coxa plana or Legg-Perthes disease,
2. Epiphyseal separation,
3. Tuberculosis,
4. Infectious arthritis,
5. Hypertrophic arthritis,
6. Aseptic necrosis,
7. Late septic hip,
8. Neoplasm,
9. Neurotrophic lesions,
10. Old fracture-dislocations,
11. Endocrine dysfunction.

Summary

1. One human trait which has been difficult to explain genetically is congenital dislocation of the hip.

2. An individual does not inherit congenital dislocation of the hip, but does inherit a primary defect, or hip dysplasia, which produces anatomical and physiological alterations of the joint called "flat socket." Only secondarily does actual dislocation occur, and dislocation need not necessarily occur.

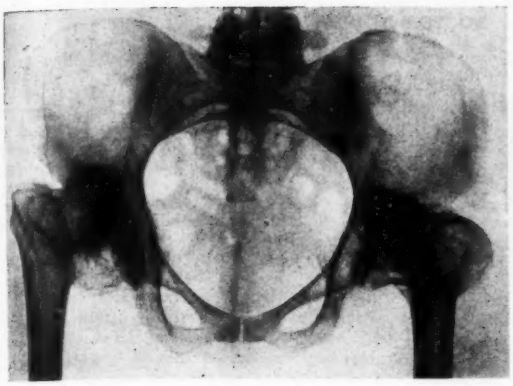

Fig. 10. The patient had bilateral hip dysplasia with dislocations which were reduced by Dr. Adolf Lorenz in 1903 when the patient was three years of age. Note the signs of bilateral hip dysplasia with added changes of traumatic arthritis. The patient is now seriously disabled at the age of forty-two years. Her sister has hip dysplasia without dislocation, but with secondary changes of traumatic arthritis (Fig. 9).

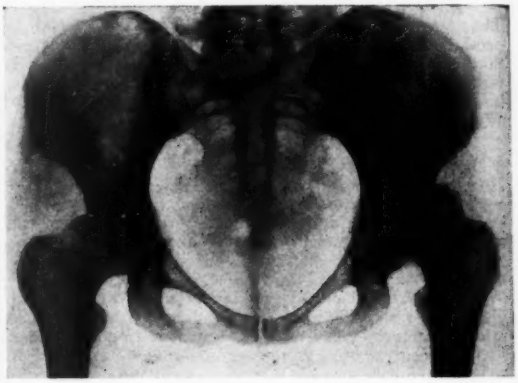

Fig. 11. Roentgenogram of patient thirty-five years old. Note the primary and secondary roentgenographic features of bilateral hip-joint dysplasia without dislocation. The patient's brother has classical dislocation of both hips.

3. Primary hip dysplasia is due to a genetic background.

4. Roentgenographic consanguinity studies are essential for a true genetic investigation of hip dislocation.

5. Dysplasia of the hip without dislocation but with varying degrees of subluxation is a distinct clinical and roentgenographic entity, and should be included in textbooks in the chapter on classical dislocation, because the two entities have the same genetic etiology.

6. Dysplasia of the hip with subluxation occurs more frequently and may be more disabling than classical dislocation.

7. Acclivity of the roof of the acetabulum is the primary anatomical feature of a dysplastic acetabulum or flat socket.

8. Hip dysplasia refers not only to the acetablum, but also to all joint-forming parts of the hip joint.

9. Primary hip dysplasia with dislocation on one side is frequently associated with dysplasia with subluxation on the opposite side.

10. Hip-joint instability and incongruity between the head and socket are the physiological and anatomical expressions of hip dysplasia.

11. Primary hip dysplasia with subluxation may remain asymptomatic for many years; in some individuals it may never be expressed clinically.

12. The extreme disability observed in some individuals is caused by traumatic arthritis of the hip joint resulting from mechanical factors of instability and incongruity.

13. The patient may gain relief of pain and disability by conservative treatment and surgical measures.

14. The geneticist and the surgeon have a tremendous opportunity for co-operative investigation.

15. Earlier recognition and earlier treatment of the dysplastic hip is our only hope for reducing the disability of this large group of patients.

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11. Preiser, Georg: Die Arthritis deformans coxae und die Variationen der Hüftpfannenstellung. Leipzig: F. C. W. Vogel, 1907.
12. Putti, Vittorio: Early treatment of congenital dislocation of the hip. J. Bone & Joint Surg., 11:798 (Oct.), 1929.
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Discussion

DR. LEO G. RIGLER, University of Minnesota: I was glad to hear Dr. Hart say that the diagnosis of congenital dislocations could be made before the evidence of development of the epiphysis. It is unfortunate that these cases are missed. In my experience, the grandmother sometimes knows more than the doctor about congenital dislocations of the hip. A while ago a doctor called me and told me that the grandmother of a little patient he was treating was making a lot of trouble for him; the grandmother insisted that the child had dislocation. He sent the child in for x-ray examination and I had the unhappy task of admitting to them that the grandmother was right and the doctor was wrong. This was bilateral. Some years ago Dr. Hart brought to our attention this matter of dysplasia of the acetabulum. There are one or two things that always intrigue me about that. If the flat acetabulum is the major factor in congenital dislocations, why don't we meet more dislocations in older children? The other thing that is of interest was the beautiful development of the socket when the dislocation is well reduced in early infancy.

The pressure of any object against bone will tend to produce a socket for it to fit into. The absence of the pressure of the head of the femur may well be a factor in the flatness of the acetabulum. On the whole, however, the evidence favors the theory that Dr. Hart advances.

DR. LOGAN LEVEN, Saint Paul: I wish to ask Dr. Hart one question. He mentioned that dysplasia of the acetabulum was the primary factor in congenital dislocation of the hip and that the deformity of the head and neck of the femur resulted according to Wolff's law. In one case that he showed, there was some dysplasia of the head and neck of the femur at age three months. Since this would be before weight bearing, I do not think that Wolff's law would be a significant factor. Does not the dysplasia affect the head of the femur as well as the acetabulum?

DR. HART (in closing): The flat socket which I defined is referred to as a dysplastic hip—a term generally used today. The dysplasia is not limited to the socket but also involves all mesodermal tissues entering into the formation of the hip joint. Bilateral involvement is common. For many years we have focused our attention on the dislocated side and failed to recognize dysplasia of the opposite "healthy" hip. If we study both hips we will find some degree of dysplasia on both sides in the majority of patients. We are continuing to study this problem clinically and radiologically but it is very difficult to approach it genetically. It is practically impossible to obtain roentgenograms of an entire family tree. One must have roentgenological consanguinity studies for a thorough genetic study. If we could study the entire family tree roentgenologically, I am sure that we could repeat the evidence which Dr. Alexander Faber reported in 1935. The bane growth changes of the epiphysis are both primary and secondary, the primary cause being genetic and the secondary cause the result of Wolff's law.

DR. RIGLER: Many have flat acetabuli but do not have dislocations.

DR. HART: It is true that the subluxated hip never dislocates. I believe that it is the degree of dysplasia of the capsule as well as the degree of dysplasia of the socket which determines dislocation or subluxation.

The meeting adjourned.

A. E. CARDLE, M.D., *Secretary.*

INFECTION OF THE NECK AFTER TONSILLECTOMY

(Continued from Page 853)

for signs and symptoms of the onset of infection in the neck. Should such infection occur, prompt and rational treatment should be instituted. Two cases in which infection in the neck occurred after tonsillectomy are reported.

References

1. Mosher, H. P.: The submaxillary fossa approach to deep pus in the neck. Tr. Am. Acad. Ophth., pp. 19-36, 1929.
2. New, G. B., and Erich, J. B.: Deep infections of the neck; collective review. Internat. Abstr. Surg., 68:555-567, (June) 1939.

DOCTOR OF WHAT?

The *J.A.M.A.*[1], in discussing editorially the term "doctor" in America, says:

Dr. Edward M. Repp, of Philadelphia, has a question for the medical Emily Post. His daily work requires occasional conferences with his druggist and also with the head of a laboratory who examines specimens. Should he address these associates as doctor or mister? In the neighborhood where he resides are also an osteopath, a chiropactor, and a chiropodist. These, too, he meets occasionally while en route on his medical tasks; he never knows whether to say "doctor" or something different. A similar question disturbed Hugh J. McDonald,[2] who discussed the subject not long ago in the *Journal of Higher Education.* A survey of the graduate degrees awarded by the colleges and schools of New York State during 1937 reveals thirteen types of doctors' degrees awarded during the year. . . .

The degree of doctor is now conferred in so many areas of learning that the result is confusion. McDonald feels that the conferring of the doctoral degree is in need of a thorough house cleaning.

The degree of doctor of philosophy (Ph.D.) is granted for three years of full-time study and examination and the preparation of a thesis following the bachelor's degree. The degree of doctor of science (D.Sc.) is granted for an identical program when the major part of the work is in science.

Many times in education, history, literature, economics, sociology, and natural sciences the Ph.D. seems to be granted for meeting a standard of mediocrity. . . .

As McDonald points out, in the field of ill health the assortment of doctorates now includes the degree of naprapathy, which can be had in ninety days without any entrance requirements; doctor of chiropractic in from one to four years depending on the school, with the minimum entrance requirement usually just an elementary school education; doctor of surgical chiropody in from eighteen months to three years, with an entrance requirement like that of chiropractic; doctor of optometry three to four years after high-school graduation; doctor of osteopathy a minimum of four years, with one year of college work as prerequisite; doctor of public health, with as yet little standardization and, incidentally, available to graduates in bacteriology or related fields after three years' study. McDonald believes that some of these people have about as much legitimate claim to a doctor's degree as would a hotel dishwasher to a D.D.W. Then there are also doctors of medicine, doctors of dental medicine, doctors of veterinary medicine, and doctors of dental surgery with better standardized requirements.

Educational authorities might well consider the desirability of some standardization in this area so that the degree of doctor, regardless of the field of learning in which it is applied, will have real significance.

Furthermore, the public should be able to determine from a title the actual qualifications of the man who adorns himself with it. Finally, the economists who devote themselves to propaganda for revolutionizing medical care persistently trade on their doctor of philosophy degrees and thus perpetrate a fraud on the public, who take it for granted that these "doctors" are physicians.—Editorial, *New York State Journal of Medicine,* Dec. 15, 1946.

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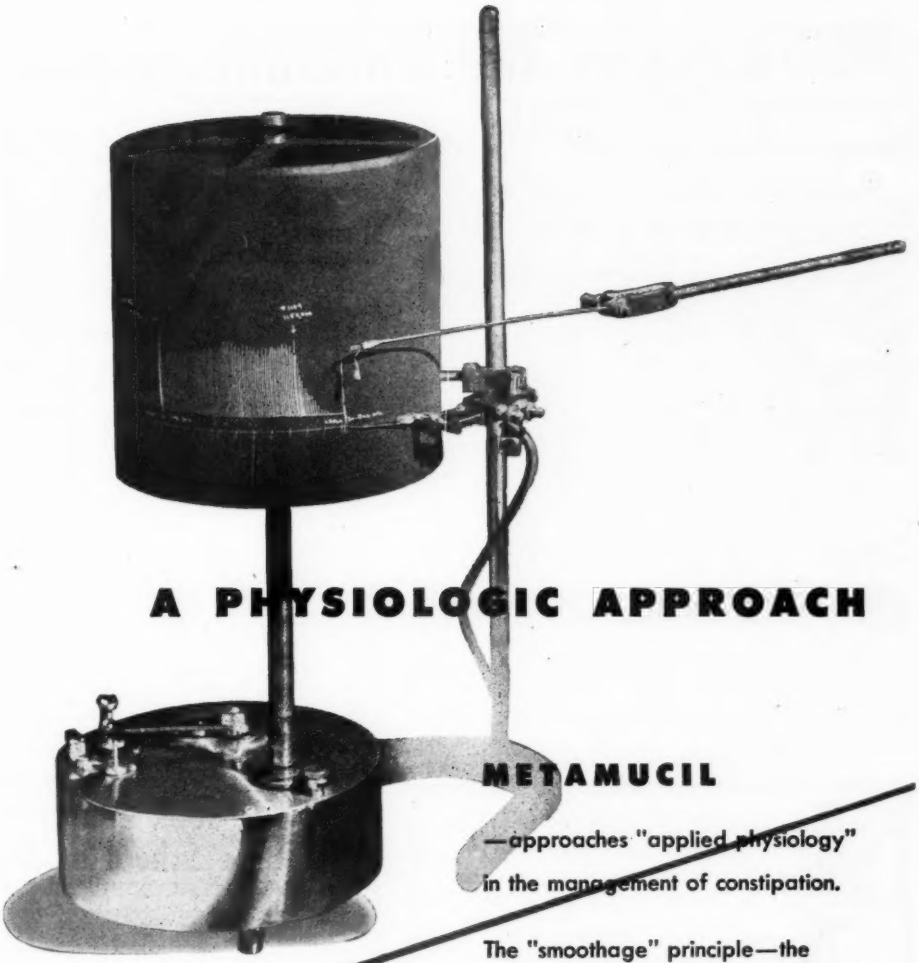
1. J.A.M.A., 129:1168, (Dec. 22), 1945.
2. McDonald, Hugh J.: J. Higher Education, 14:189 (April) 1943.



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RESEARCH IN THE SERVICE OF MEDICINE

Reports and Announcements

MEDICAL BROADCAST FOR AUGUST

The following radio schedule of talks on medical and dental subjects by William O'Brien, M.D., Director of Postgraduate Medical Education, University of Minnesota, is sponsored by the Minnesota State Medical Association, the Minnesota State Dental Association, the Minnesota Hospital Service Association in co-operation with the Minnesota Hospital Association and the Minnesota Nurses Association, and the University of Minnesota School of the Air.

Aug. 5	9:00 A.M.	WCCO	Orthopedic Nursing
Aug. 7	9:00 A.M.	WCCO	Coronary Heart Disease
Aug. 12	9:00 A.M.	WCCO	Hospital Annual Report
Aug. 14	9:00 A.M.	WCCO	What is High Blood Pressure
Aug. 19	9:00 A.M.	WCCO	Cost of Chronic Patient Care
Aug. 21	9:00 A.M.	WCCO	Diseases of Allergy
Aug. 26	9:00 A.M.	WCCO	Personality of an Ideal Nurse
Aug. 28	9:00 A.M.	WCCO	Oral Disease

AMERICAN ASSOCIATION FOR THE STUDY OF GOITER

The annual meeting of The American Association for the Study of Goiter will be held in the King Edward Hotel, Toronto, Canada, May 6, 7, and 8, 1948.

The program for the three-day meeting will consist of papers dealing with goiter and other diseases of the thyroid gland, dry clinics and demonstrations.

Communications regarding the program may be addressed to the Corresponding Secretary, T. C. Davison, M.D., Atlanta, Georgia.

AMERICAN COLLEGE OF ALLERGISTS—INSTRUCTIONAL COURSE

The American College of Allergists has announced that its annual Fall Graduate Instructional Course in Allergy will be given in Cincinnati, Ohio, November 3-8, inclusive, under the auspices of the Medical College of the University of Cincinnati.

The program this year is the best ever offered by the College. Forty-six formal lectures are listed and also a special allergy clinic of case presentations. An added feature this year will be three informal discussion groups led by various members of the faculty.

The faculty is composed of more than forty outstanding physicians and scientists from prominent medical centers and colleges in the United States and Canada. The Course presents a comprehensive study of the entire field of allergy—covering the fundamentals, special allergies, specific diseases, and all modern methods of treatment. Symposiums on dermatologic and pediatric allergy are also included, as well as a survey of the laboratory approach to the subject including preparation and standardization of extracts and skin testing.

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SURGERY—Two-week Intensive Course in Surgical Technique, starting September 22, October 30, November 17.
Four-week Course in General Surgery, starting September 8, October 6, November 3.
Two-week Course in Surgical Anatomy and Clinical Surgery, starting September 22, October 20, November 17.
One-week Course in Surgery of Colon and Rectum, starting September 15 and November 3.
Two-week Course in Surgical Pathology, every two weeks.

FRACTURES AND TRAUMATIC SURGERY—Two-week Intensive Course, starting October 6.

GYNECOLOGY—Two-week Intensive Course, starting September 22, October 20.
One-week Course in Vaginal Approach to Pelvic Surgery, starting September 15 and October 13.

OBSTETRICS—Two-week Intensive Course, starting September 8, October 6.

MEDICINE—Two-week Intensive Course, starting October 6.
Two-week Course in Gastro-enterology, starting October 20.
Two-week Course in Hematology, starting September 29.
One-month Course in Electrocardiography and Heart Disease, starting September 15.

DERMATOLOGY and SYPHILOLOGY — Two-week Course, starting October 20.

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The course is recommended to all those especially interested in allergy, and to the general practitioner and specialist who anticipates treating his own allergic patients. It is designed to provide a more comprehensive understanding of the many manifestations of allergy so commonly encountered by the doctor, and to emphasize methods of diagnosis and treatment so that the physician is prepared to offer the greatest aid to his patient.

Programs and complete information can be obtained by writing to the College Secretary, Dr. Fred W. Wittich, 423 La Salle Medical Building, Minneapolis 2, Minnesota.

AMERICAN COLLEGE OF CHEST PHYSICIANS—POSTGRADUATE COURSE

The American College of Chest Physicians is sponsoring a second annual postgraduate course in diseases of the chest to be held during the week of September 15-20, 1947, at the Municipal Tuberculosis Sanitarium, Chicago, Illinois.

The emphasis in this course will be placed on the newer developments in all aspects of diagnosis and treatment of diseases of the chest.

The course will be limited to 30 physicians. Tuition fee is $50.00.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

AMERICAN COLLEGE OF PHYSICIANS—RESEARCH FELLOWSHIPS

The American College of Physicians announces that a limited number of Fellowships in Medicine will be available from July 1, 1948-June 30, 1949. These Fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation. They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in Internal Medicine. Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work. The stipend will be from $2,200 to $3,000.

Application forms will be supplied on request to The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and must be submitted in duplicate not later than November 1, 1947. Announcement of the awards will be made as promptly as is possible.

The next annual session of the American College of Physicians will be held in San Francisco, April 19-23, 1948.

AMERICAN COLLEGE OF SURGEONS—CLINICAL CONGRESS

The thirty-third annual Clinical Congress of the American College of Surgeons, including the twenty-sixth annual Hospital Standardization Conference, will be

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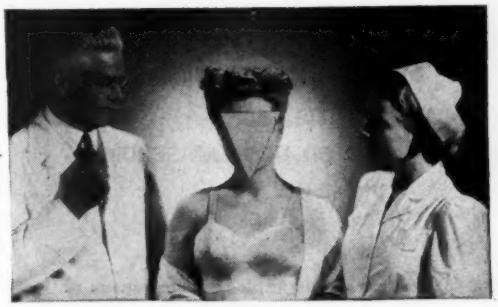

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held at The Waldorf-Astoria, New York, from September 8 to 12.

The five-day program will feature operative and non-operative clinics in thirty-eight hospitals in New York and Brooklyn, and scientific sessions in general surgery and the surgical specialties, official meetings, hospital conferences, medical motion pictures, and educational and technical exhibits, at the headquarters hotel. Dr. Howard A. Patterson of New York is Chairman of the Committee on Arrangements; Dr. Frank Glenn is Secretary. Dr. Malcolm T. MacEachern and Dr. Bowman C. Crowell, Chicago, the Associate Directors, are in general charge.

For particulars address L. G. Jackson, American College of Surgeons, 40 E. Erie Street, Chicago 11, Illinois.

CHICAGO OPHTHALMOLOGICAL SOCIETY—REFRESHER COURSE

The Chicago Ophthalmological Society will give a 40-hour refresher course December 8 to 13, inclusive. The faculty will include members of the Eye Department of The University of Chicago, The University of Illinois, Loyola University, Northwestern University and staff members of all of the principal hospitals of Chicago. Instruction will consist of didactic and practical course, emphasis being placed on the practical courses given to small groups.

Physicians practicing ophthalmology and eye, ear, nose and throat are eligible for the course. The fee will be $100.00. For details write to the registrar, Miss Maude Fairbairn, 8 West Oak Street, Chicago, Ill.

MEDICO-LEGAL CONFERENCE AND SEMINAR

A medico-legal conference and seminar for pathologists, medical examiners and coroners will be held October 13-18, 1947, at Harvard Medical School, Boston.

The Department of Legal Medicine of the medical schools of Harvard, Tufts, and Boston University in association with the Massachusetts Medico-Legal Society will present a six-day program of lectures, conferences, and demonstrations having to do with the investigation of deaths in the interests of public safety. Attendance will be limited to twenty-five persons who have registered in advance.

Further information may be obtained from the Department of Legal Medicine, 25 Shattuck Street, Boston, Massachusetts.

FIFTIETH ANNIVERSARY CELEBRATION

The September meeting of the Ramsey County Medical Society will be held at 8 P.M. September 23 in the society auditorium, and will be devoted to a celebration of the Fiftieth Anniversary of the founding of the library. Dr. John F. Fulton, Sterling Professor of Physiology at Yale University, will be the speaker of the evening. His being a former St. Paulite, well-known author and authority on medical libraries, makes his choice a particularly happy one. All physicians are cordially invited to attend this meeting.

In 1895, a loan medical library for mutual better-

ment was established by Dr. J. L. Rothrock, Dr. Arthur Dunning and Dr. Edward Boeckman with headquarters in a room in the old Lowry Arcade in St. Paul. Medical books and journals were contributed and collected by enthusiasts, among whom were Dr. Boeckman and Dr. H. L. Taylor. In the fall of 1897, the Ramsey County Medical Society took over the activities of the Library Association, and a library committee consisting of Drs. J. L. Rothrock, W. B. Morley, and H. L. Taylor was appointed. In 1898, this committee endorsed the publication of a medical journal to provide funds and exchanges for the support of the library. *The St. Paul Medical Journal* began publication in 1899 with Dr. Burnside Foster as editor. From such a modest beginning the Ramsey County Medical Society Library has become one of the largest and best in the state.

MISSISSIPPI VALLEY MEDICAL SOCIETY

The twelfth annual meeting of the Mississippi Valley Medical Society at Burlington, Iowa, October 1-2-3, 1947, will have over thirty clinician-teacher speakers. October 1 will feature an all-St. Louis program conducted by clinical teachers from St. Louis and Washington Universities. On October 2 there will be speakers from various medical centers including Dr. E. L. Bortz, President, American Medical Association, Dr. I. H. Neece, President, Illinois State Medical Society, Dr. M. B. Simpson, President, Missouri State Medical Association, and Dr. H. A. Spilman, President, Iowa State Medical Society. There will be a social hour and banquet on this date. The afternoon program will be devoted to presentations by a group from the University of Iowa. October 3 will feature an all-Chicago program with a number of well-known clinical teachers from Chicago medical schools. A Clinico-Pathologic Conference and a Round Table luncheon will be featured on this date.

The fourth annual meeting of the Mississippi Valley Medical Editors' Association will be held during the annual convention of the Mississippi Valley Medical Society on October 1.

A complete, detailed program will be available September 20 and may be obtained from Dr. Harold Swanberg, Secretary, W.C.U. Building, Quincy, Illinois.

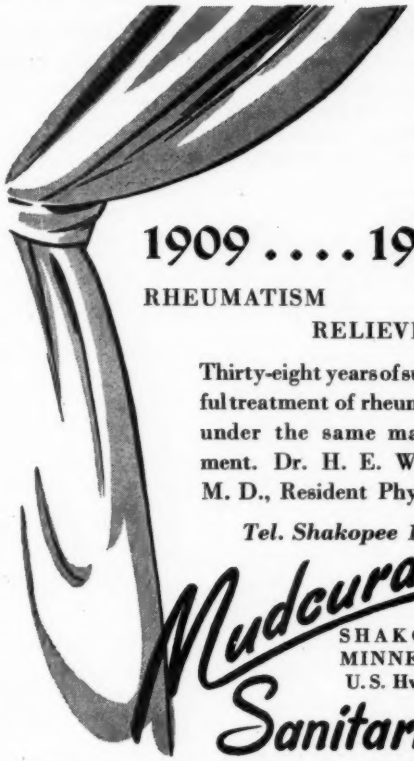
CIVIL SERVICE EXAMINATIONS FOR PHYSICIANS

The State Civil Service Department is announcing unassembled examinations for physicians for appointment in state hospitals and institutions in general medicine as well as in such specialties as psychiatry and tuberculosis.

Salary levels are as follows:

Physician I	$270-$320	in five $10 steps
Physician II	$397-$457	in five $12 steps
Physician III	$474-$544	in five $14 steps

Announcements and application blanks may be obtained by writing the State Department of Civil Service, 122 State Office Building, St. Paul. Applications will be received until further notice, but for inclusion on the first list should be submitted by September 22, 1947.



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SOUTHERN MINNESOTA MEDICAL ASSOCIATION

The annual meeting of the Southern Minnesota Medical Association will be held in Turner Hall, New Ulm, Minnesota, Monday, September 8, 1947.

The morning session will include the following papers, ending with a Clinical Pathological Conference:

Management of Minimal Pulmonary Tuberculosis —David T. Carr, M.D., Rochester

Management of Bronchial Asthma in Childhood—George B. Logan, M.D., Rochester

Experiences with Urethane in the Treatment of Myelogenous Leukemia—Charles H. Watkins, M.D., Rochester

Results of Treatment of Subacute Bacterial Endocarditis —Charles H. Scheifley, M.D., Rochester

Diverticulitis—W. G. Sauer, M.D., Rochester

A complimentary luncheon and the annual business meeting will occupy the noon hour.

The afternoon session, beginning at two o'clock, will include a number of case reports and the following papers:

Proctology and the General Practitioner—W. C. Bernstein, M.D., Saint Paul

New Proctologic Dressings—James K. Anderson, M.D., Minneapolis

Complications Following Hip Fractures—Forrest L. Flashman, M.D., and R. K. Ghormley, M.D., Rochester

Incidence of Pulmonary Embolism in Venous Sclerosing Therapy—M. A. Johnson, M.D., and F. L. Smith, M.D., Rochester

Physical Rehabilitation of the Paraplegic: Treatment of Spastics (Movie)—Earl Elkins, M.D., Rochester

The banquet will be in Turner Hall at 6:30 o'clock, following which L. A. Buie, M.D., Rochester, President, State Medical Association, will speak. The Presidential Address will be delivered by C. M. Robilliard, M.D., Faribault.

DELEGATES DISCUSS HEALTH QUESTIONS

(Continued from Page 883)

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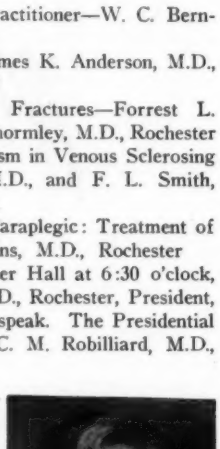

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In Memoriam

JOSEPH H. ABRAMOVICH

Dr. Joseph H. Abramovich of Saint Paul died June 12, 1947, at the age of sixty-eight.

Born in Russia in 1878, Dr. Abramovich came to America as a boy. He graduated from Hamline Medical School in 1905 and took postgraduate study in Vienna. He had practiced most of the past forty years in Saint Paul and recently was a medical consultant for the Veterans Administration in Minneapolis. He was a member of the Ramsey County Medical Society, the Minnesota State and American Medical Associations. He is survived by his wife, two brothers, and three sisters.

WILLIAM DAVIS

Dr. William Davis, for fifty-six years a general practitioner in St. Paul before his retirement on April 30 1939, passed away on May 9, 1947, at the age of ninety-three.

Dr. Davis was born in Plymouth, Massachusetts, September 28, 1853, the ninth lineal descendant of his Pilgrim ancestors to be born in that historic New England town. Following his graduation from Phillips Exeter Academy in 1871, on the advice of his physician as a cure for astigmatism, he went as passenger on a sailing vessel carrying a cargo of ice from Boston to India. On the return trip he read all the books of Virgil during his spare hours.

After graduating from Harvard College in 1876 he attended Harvard Medical School receiving his M.D. in 1879 and served a three months' internship at the McLean Lying-In Hospital in Boston. One June 26, 1878, he married Sally White Holyoke and in 1880 spent a year in Vienna where his second child was born.

After practicing in Syracuse, New York, for three years, Dr. Davis moved to Saint Paul in 1883, the same year joining the Ramsey County Medical Society. On the occasion of the Diamond Jubilee dinner celebration of the Society in 1935 he told of the early days; how in 1885 many doctors had no telephone but used those in the nearby drug stores, the public being allowed to use the phones located in the fire department barns for calling a physician. The attendance at the County Medical Society meeting was poor until dinner meetings were instituted in 1890. "Das Essen; das ist die Hauptsache" as he was wont to quote from his Vienna days, proved true of medical meetings in the early days as well as the present.

Dr. Davis was president of the Ramsey County Medical Society in 1892, president of the Minnesota State Medical Association in 1901, a charter member of Minnesota Academy of Medicine which was founded October 12, 1887, and its president in 1903, and a member of the Minnesota State Board of Medical Examiners from 1900 until 1906.

Dr. Davis contributed much to early medical publications having been Associate Editor of the *Northwestern Lancet* from October, 1886, until December, 1899, and on the Editing and Publishing Committee of the *Saint Paul Medical Journal* from 1901 until 1912.

Beginning in 1905, Dr. Davis spent his summers at South Orleans, Massachusetts, building a summer home there in 1907. This practice he continued until 1942 when gasoline rationing interfered with motoring East, which he so much enjoyed.

Dr. and Mrs. Davis celebrated their golden wedding in 1928. They were blessed with four children, fourteen grandchildren and twenty-three great grandchildren. Their summers were spent surrounded by members of their large family and friends. Mrs. Davis died in 1929.

Dr. Davis was a member of Unity Church, Saint Paul, and for many years belonged to the Informal Club. He had little use for clubs in general. Fond of bridge, he played a keen game until he was invalided as a result of a fractured hip in November, 1945.

Dr. Davis was held in high esteem by the profession and his many patients, for his medical sagacity and his lovable personal qualities. His was a richer and longer life than most of us can expect to attain.

GEORGE E. SENKLER
CARL B. DRAKE

CHARLES MILTON KISTLER

Dr. Charles Milton Kistler was born August 12, 1869, at Pleasant Corner, Carbon County, Pennsylvania. He was descended from Peter Kistler, President of the Republic of Berne, Switzerland. His parents were David and Mary Kistler.

Dr. Charles Kistler came to Minneapolis in 1887, where he studied pharmacy. After three years, however, he entered the Medical Department of the University of

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Minnesota, where he graduated in 1893. He then took a course at the New York Polyclinic Institute.

His early hospital practice was at the St. Barnabas and Asbury Hospitals. At the beginning of the century, when the New Swedish Hospital was opened, he joined the surgical staff.

On March 29, 1900, he married Grace T. Braem of Alma, Wisconsin.

He went abroad for special work in surgery several times—in 1900, in 1905 and in 1934.

Dr. Kistler practiced in Minneapolis for fifty years, restricting his work to surgery. When he became ill four years ago, he retired and spent much time in travel. During the past year, however, he was confined to his home, where he died on July 8, 1947.

Dr. Kistler was a member of the Hennepin County Medical Society, the Minnesota State Medical Association and the American Medical Association.

He is survived by his wife, Grace, his son, Stuart, a sister, Mrs. Arthur Kistler of Saint Paul and several nieces and nephews, among whom is Dr. Alvin Kistler of Minneapolis.

CHARLES WESLEY MORE

Dr. Charles Wesley More of Eveleth, prominent in medical circles in northern Minnesota for many years before his retirement several years ago, died June 1, 1947, at the age of eighty-six.

Dr. More was born in Elkader, Iowa, January 6, 1861. He graduated from Northwestern Medical School in 1888 and took postgraduate work at the Polyclinic in New York.

He began practice at Two Harbors in 1888 and in 1889 moved to Ely. For the next four years he practiced at Ely and from 1891 to 1893 served as a member of the first Board of Health of that city.

He came to Eveleth in 1893 at the time iron mining on the range was just beginning to be developed. He began practice and established a hospital in a one-story building before the town of Eveleth was platted. In 1900 he built the present hospital which bears his name.

Dr. More was a member and past chairman of the Public Library Board of Eveleth, a member and past chairman of the Eveleth Board of Education, one of the first directors of the Miners National Bank of Eveleth, a director of the First National Bank since 1921. During the first World War he was active in the Liberty Loan and American Red Cross drives.

Dr. More was a member of the St. Louis County Medical Society, the Minnesota State and American Medical Associations, a founder and third Master of the Eveleth Masonic lodge, a member of the Scottish Rite and Aad Temple, Ancient and Arabic Order of the Mystic Shrine in Duluth. He was also an active member of the First Methodist Church.

On October 26, 1892, Dr. More married Blanche E. Streiter and they celebrated their Golden Wedding Anniversary in 1942. Mrs. More passed away in 1944, and for several years Dr. More resided with his daughter, Margaret.

The following editorial which appeared in the *Eveleth News-Clarion* well expresses the esteem in which Dr. More was held in his community.

He Surely Left His Mark

All Eveleth bowed in silent respect and deep sadness when it learned last Sunday morning that the soul of Dr. Charles W. More had departed this earth for its place in Heaven.

So much of the history of this community from its very infancy was wrapped up in this lovable character, that every home was sorely affected.

He was one of the remaining stalwarts who had seen the town outgrow its muddy streets, mining shacks and frontier handicaps to a clean, modern and progressive city.

He was one whose profession was a religion, who brought many a present-day citizen into this world, who took a personal interest in his patients, no matter what the risk or difficulty to reach them and who maintained the pace until his reserve strength was all but exhausted.

Few people will ever know all that he did for the community and for the cause of suffering humanity. Never once did public confidence and respect ever flag in Dr. More's ability and honesty. He was Eveleth's No. 1 gentleman.

Keenly interested in seeing that youngsters of this community secured the best in education, Dr. More served many years on the library and school boards and our entire school system is a memorial to his efforts —for he was one of its foremost champions.

When his name became connected with a local business institution, it immediately carried public confidence.

His own hospital, about the earliest and most recognized on the Mesaba Range, stood for the best in medical and surgical attention. It is significant that this man passed to his eternal reward in the institution that he founded.

To this great example of manhood, the editor pays his humble tribute.

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ROBERT HUGH MONAHAN

Dr. Robert H. Monahan of International Falls, formerly an orthopedist in Minneapolis, died June 3, 1947, at the age of seventy-six, while en route to his former home in New Brunswick, Canada.

Dr. Monahan obtained his medical degree from the University of Minnesota in 1906 and practiced at International Falls and at Blackduck. He held the rank of Captain in the British Army Medical Corps during World War I, and located in Minneapolis in 1920. In 1935 he returned to International Falls. While in Minneapolis he was a member of the Hennepin County Medical Society and transferred to the Upper Mississippi Medical Society on moving to International Falls.

Dr. Monahan is survived by his wife, Dr. Elizabeth Monahan of Minneapolis, a son Robert, Jr., a daughter, Mary, and five grandchildren.

LLEWELLINGTON D. PECK

Dr. L. D. Peck, prominent physician of Hastings for the past forty-five years, died July 4, 1947 at St. Mary's Hospital, Rochester, from cerebral thrombosis. He had been seriously ill for six weeks and was sixty-nine years old at the time of his death.

Born in Rochester, Minnesota, August 22, 1877, Dr. Peck received his early schooling there, graduating from the Rochester High School. He received his medical degree from Hamline Medical School in 1902. The same year he began practice in Hastings and for the entire period of his practice there served as physician for the river division of the Milwaukee railroad. About fifteen years ago he established St. Francis Hospital. For a number of years he served as alderman and twice was elected mayor. He was also an active and influential member of the Hastings school board.

Dr. Peck was a member of the Dakota County Medical Society, of which he was secretary at the time of his death, the Minnesota State and American Medical Associations. He was a member of the Guardian Angels church and the Knights of Columbus.

During World War I, Dr. Peck was chosen as medical examiner for Dakota County.

In 1904 Dr. Peck married Katherine Fasbender of Hastings. He is survived by his wife and two children, Dr. Llewellyn R. Peck, who was a partner with his father, and a daughter, Mrs. Cyrus C. Erickson of Durham, North Carolina.

For these many years active in the civic life of Hastings, Dr. Peck will be greatly missed by his many patients and friends.

EMIL C. ROBITSHEK

Dr. Emil C. Robitshek, a prominent surgeon of Mankato and Clinical Assistant Professor of Surgery at the University of Minnesota, died June 23, 1947. He was sixty-six years of age, having been born in Bohemia, August 18, 1880. As an infant he came to America and became a naturalized citizen in 1903.

A graduate of South High School, Mankato, Dr. Robitshek obtained his medical degree from the University of Minnesota in 1903, and interned at the Minneapolis General Hospital. He took postgraduate work in Vienna, Berlin, and Prague before beginning practice in Minneapolis.

Dr. Robitshek was a Fellow of the American College of Surgeons, a diplomate of the American Board of Surgery, and a past president of the Minneapolis Surgical Society. He was also a member of the Minnesota Academy of Medicine and a staff member of Eitel and Abbott Hospitals. He was a member of the Hennepin County Medical Society, the Minnesota State and American Medical Associations. He also belonged to Phi Delta Epsilon medical fraternity, Acacia Lodge and Zuhrah Shrine Temple.

Dr. Robitshek is surved by his wife, a son, H. J Robitshek of Green Bay, Wisconsin, and a daughter, Mrs. Lewis K. Wayne of Minneapolis.

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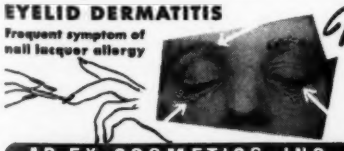

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Of General Interest

Dr. J. W. Hawkinson, Luverne, in July moved from his old office to new quarters in the recently constructed Fitzer Building in Luverne.

* * *

Dr. O. M. Rotnem, formerly of Minneapolis, has moved to Spring Grove and formed a partnership medical practice with Dr. L. A. Knutson of that city.

* * *

Dr. W. J. Bushard, Minneapolis, has moved his offices to 704 Physicians and Surgeons Building. His practice is limited to ophthalmology and ophthalmic surgery.

* * *

Dr. Herman F. Hilleboe has resigned as Assistant Surgeon General of the U S. Public Health Service and has been appointed State Commissioner of Health of New York.

* * *

Announcement has been made that Dr. Karl W. Pleissner, Minneapolis, has opened an office in Loretto and is conducting a practice there every Wednesday, day and evening.

* * *

Dr. Paul F. Dawn, Minneapolis, has been elected president of the Minnesota Heart Association, a project initiated by the Heart Committee of the Minnesota State Medical Association.

* * *

Eighty-five years old, Dr. E. E. Shrader, Winsted's only physician, is still maintaining an active medical practice. He celebrated his eighty-fifth birthday on June 30.

* * *

Dr. N. J. Kulzer, Hastings, was elected department surgeon of the Veterans of Foreign Wars at the annual state VFW convention in Duluth during the last week of June.

* * *

Dr. William H. Hollingshead has become associated with Dr. Harvey O. Beek in the practice of internal medicine, with offices at 1352 Lowry Medical Arts Building, Saint Paul.

* * *

Reappointed to the State Board of Medical Examiners, Dr. Albert Fritsche, New Ulm, will serve on the board for a term ending May 1, 1954. Dr. Fritsche has been a member of the board since 1933.

* * *

Major Charles W. Fogarty, a former member of the Mayo Clinic staff, has been separated from the army and plans to enter private practice in Saint Paul, it was announced July 2.

* * *

Eighty-two pediatricians from thirty different countries visited the University of Minnesota Hospitals on July 26 as part of a tour of pediatric centers throughout the nation. The tour followed the Fifth International Congress of Pediatrics, held in New York City during July.

* * *

Dr. Albert G. Schulze, Saint Paul, has resigned from the Ramsey County Welfare Board, it was announced July 2. Dr. Schulze had been a member of the board since May 18, 1942.

* * *

Dr. B. R. Kirklin, Rochester, will direct a series of special courses for more than 1,000 radiologists at the forty-eighth annual meeting of the American Roentgen Ray Society in Atlantic City, September 16 to 19.

* * *

The appointment of Dr. H. R. Tregilgas, South Saint Paul, to the State Board of Examiners in Basic Science was announced on June 19. Dr. Tregilgas, whose term extends to April 1, 1953, succeeds Dr. Charles Bolsta, Ortonville.

* * *

Dr. Arnold E. Naegeli has completed a year of postgraduate study at the University of Minnesota, following his discharge from military service and has resumed the practice of surgery at 1154 Medical Arts Building, Saint Paul.

* * *

At the recent annual meeting of the American Medical Association in Atlantic City, Dr. Cecil J. Watson, head of the Department of Medicine in the University of Minnesota Medical School, was elected chairman of the association's Section on Internal Medicine.

* * *

Announcement has been made that Dr. S. E. Friefeld, Wadena, has passed the examination of the American College of Radiology and become a diplomate of the American Board of Radiology. Dr. Friefeld is a staff member of Wesley Hospital in Wadena.

* * *

The Associated Alumni of the University of Colorado has awarded the Norlin Medal for distinguished achievement to Dr. O. T. Clagett, Mayo Clinic surgeon, it was recently announced. Dr. Clagett graduated from the University of Colorado School of Medicine in 1933.

* * *

Dr. Theodore Armstrong, formerly of Northfield, who has been on the staff of Minneapolis Veterans Hospital since his return from military service, has moved to Seattle, Washington, where he has accepted a two-year residency in surgery in the Virginia Mason Hospital.

* * *

A resident physician at the University of Minnesota Hospital, Dr. Robert H. Conley, formerly of Watertown, South Dakota, will be married on September 6 to Miss Harriette Marie Hathaway of Mankato. A graduate of the University of Minnesota Medical School, Dr. Conley is specializing in internal medicine.

Dr. C. A. Aldrich and Dr. T. J. Dry, Rochester, attended a meeting of the International Congress of Pediatrics, held in New York City in July. While there, Dr. Aldrich attended a meeting of the Committee on Maternal and Child Feeding of the National Research Council.

* * *

Formerly of Wheaton, Dr. George W. Bagby has opened an office for the practice of medicine in Cannon Falls. Dr. Bagby, who recently completed his internship at Ancker Hospital in Saint Paul, is a graduate of the medical school of Temple University in Philadelphia.

* * *

Announcement has been made that Dr. P. S. Hench, Rochester, has been elected chairman of the American committee of the Ligne International Contre le Rheumatism, and will be in charge of arrangements for the International Congress on Rheumatic Diseases to be held in the United States in 1949.

* * *

As guest speaker at the sanatorium commission meeting in Crookston on July 9, Dr. Gilbert Mark of the State Board of Health discussed a proposed x-ray survey to be conducted, using mobile x-ray units, in parts of Polk County for a six-week period in November and December.

* * *

President-elect of the American Orthopaedic Association is Dr. Ralph K. Ghormley, Rochester, who was chosen for the office at the association meeting in Hot Springs, Virginia, on June 30. Dr. Ghormley, head of the Orthopedic Section of the Mayo Clinic, will assume the presidency in June, 1948. He has been a member of the association for twenty years.

* * *

Dr. E. G. Hubin, formerly of Swanville, opened his medical practice in Sandstone on June 30, replacing Dr. Manuel Brownstone who has moved to Clear Lake, Iowa, to start a new practice.

Dr. Hubin, a graduate of the University of Minnesota Medical School in 1929, was affiliated with a Deerwood sanatorium before moving to Swanville to conduct a general practice.

* * *

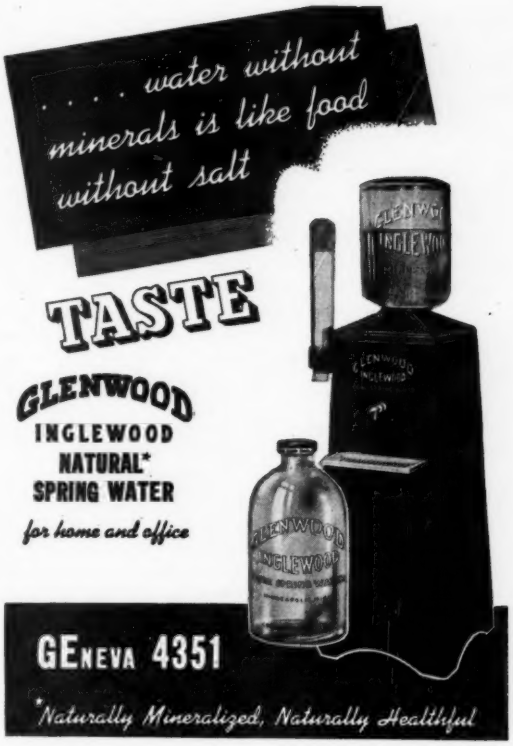
On June 15 Dr. and Mrs. J. H. Dudley, of Windom, celebrated their golden wedding anniversary. Married in Albert Lea fifty years ago, they have lived in Windom since 1906.

Dr. Dudley, after graduating from Rush Medical College in 1896, practiced medicine in Heron Lake before moving to Windom to carry on his medical practice from 1906 to 1940. In that year he gave up his medical career to become probate judge.

* * *

On July 4 Dr. William O. Finkelnburg, Saint Paul, formerly of Winona, was married to Miss Mary Evelyn Mitchell of Belle Fourche, South Dakota. The ceremony was performed at the home of friends in Saint Paul.

Dr. Finkelnburg, a graduate of the University of Minnesota Medical School, interned at Ancker Hospital in Saint Paul and is now taking postgraduate work in surgery in Saint Paul.



* * *

Plans are being made to conduct a series of rural health clinics in Goodhue County during September and October. Through the clinics every member of rural families will have the opportunity to be Mantoux-tested for tuberculosis, vaccinated for smallpox and immunized against diphtheria.

Among those co-operating in the rural clinic program will be Dr. Karl Pfuetze, superintendent of the Mineral Springs Sanatorium.

* * *

The resignation of Dr. M. W. Smith, Red Wing, from the Mineral Springs Sanatorium commission was announced on July 15. Dr. Smith was first appointed to the commission when the sanatorium was built in 1913, and he served on it until he entered service in 1918. He was reappointed to the position in 1929 and served continuously until his resignation in July.

Appointed to succeed Dr. Smith as a Goodhue County representative on the commission was Dr. Royal V. Sherman of Red Wing.

* * *

Dr. R. G. Bickford, a Mayo Clinic research associate in biophysics, flew to London on July 12 to appear on the program of the International Electroencephalography Congress meeting, held in London on July 14 to 24.

Dr. Bickford presented a paper written in collabora-

tion with Dr. E. J. Baldes, Rochester, entitled "The Electroencephalogram in Posterior Fossa Tumors," and another paper, written with Dr. M. E. Griffin, Rochester, on "Diagnostic and Theoretical Significance of the Inter-Ear Electroencephalogram."

* * *

A homecoming celebration was held on July 13 in honor of Dr. M. L. Ransom, Hancock, who has practiced medicine in that city for forty-four years. Highlight of the celebration was a parade comprised entirely of persons whose births Dr. Ransom attended. The procession was divided into five divisions, according to the birth years of the participants, with the first section consisting of persons brought into the world by Dr. Ransom from 1903 to 1910. Succeeding divisions were for the years 1911 to 1920, 1921 to 1930, 1931 to 1940 and 1941 to 1947.

* * *

Fifty years in the practice of medicine were celebrated by Dr. K. E. Berquist, Battle Lake, on June 10.

A graduate of Hamline University in 1899, Dr. Berquist served his internship at Bethesda Hospital in Saint Paul. He then practiced in several cities in Minnesota before moving to Chicago to specialize in eye, ear, nose and throat diseases. From 1914 to 1935 he carried on his medical practice in Duluth and then joined his son-in-law, Dr. C. A. Boline, in Battle Lake. Since 1943 he has been affiliated with the Otter Tail County Sanatorium.

* * *

Robert G. Rossing, son of Rev. T. H. Rossing of Sacred Heart, Minnesota, a member of the graduating class of the University of Minnesota medical school this year, was presented on July 24 by Dean Diehl with an award consisting of a silver medallion and a check for $100.00, the prize offered by the Southern Minnesota Medical Association to the member of the Senior Class who has shown the greatest proficiency in the clinical fields of medicine and surgery during his Junior and Senior years. Rossing is twenty-two years of age, married, and plans to become a medical missionary to China after completing his internship.

* * *

Knighthood was recently conferred upon a former fellow of the Mayo Foundation, Dr. A. H. McIndoe, London, for conspicuous services to the state.

Coming from New Zealand, Dr. McIndoe became a fellow in surgery in the Mayo Foundation in January, 1925, and in 1930 he received an M.S. degree from the University of Minnesota. He then went to England and entered private practice. Specializing in plastic surgery, he won high recognition for his contributions both before and during the war. In 1936 he delivered a Mayo Foundation lecture in Rochester on the subject of plastic surgery as practiced in England.

* * *

Dr. Herbert A. Hartfiel, formerly of New York City, has announced the opening of his office for the practice of medicine and surgery in Montevideo.

A pre-medical student at the University of Minnesota, Dr. Hartfiel took his medical training at the University of Kentucky in Louisville. Following internship in Norton Memorial Infirmary and St. Joseph's Hospital in Louisville, he engaged in general practice in Northwood, Iowa, for several years. He then went to Europe and studied surgery for two years in Berlin and Vienna. Upon his return he practiced for ten years in New York City before coming back to Minnesota.

* * *

July 27 was "Dr. Higgs Day" in Park Rapids when residents of that city and surrounding communities gathered to celebrate the thirty-fifth anniversary of the arrival of Dr. Walter Higgs in Park Rapids as a practicing physician.

The celebration began with a parade, which had as a principal feature a large group of the persons brought into the world by Dr. Higgs in the past thirty-five years, many of whom were accompanied by their own children. At a program in the school park following the parade, tribute was paid to Dr. Higgs by the principal speaker, Dr. Charles H. Pierce of Wadena. After the program a community picnic was staged in the park.

* * *

Formerly of Duluth, Dr. W. O. McLane has joined the Wadena Clinic, taking over the Eye, Ear, Nose and Throat Department, left vacant last fall by the death of Dr. Harry T. Frost. In his new practice Dr. McLane is associated with Dr. C. H. Pierce and Dr. J. S. Grogan of the Wadena Clinic.

Dr. McLane was graduated from Rush Medical College, Chicago, in 1928. He then practiced in several Minnesota cities until 1942. From 1943 to 1946 he took postgraduate work in eye, ear, nose and throat diseases

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at the University of Illinois, after which he became associated with Dr. F. N. Knapp and Dr. A. O. Olson in Duluth. He moved to Wadena on July 15.

* * *

Liberation of the University of Minnesota's nonresident admission policy as it pertains to the school of nursing now permits consideration of the admission applications of young women high school graduates from outside the state who desire to study nursing.

Students admitted under this new liberalized policy must meet the required admission qualifications. They must also remain in the nursing program to be permitted to remain in the University.

The University of Minnesota nursing program includes basic professional training in nursing leading to the bachelor of science degree, advanced professional training for professional nurses, a certificate course in clinical nursing for professional nurses and a certificate course in practical nursing.

* * *

Surgical research at the University of Minnesota will be greatly benefited when the proposed Mayo Memorial building is completed, Dr. Owen H. Wangensteen, head of the Department of Surgery at the University, has announced.

"Construction of the building also will augment our opportunity to bring the work of our experimental surgical laboratory into closer liaison with the work being done in the University Hospitals," he stated.

At present the eight operating rooms of the University Hospitals are divided into three suites in three different sections of the hospitals, while the surgical laboratory is located in Millard Hall, a block away from the hospitals. The nineteen-story Mayo Memorial, on which construction is expected to start next spring, will provide the Department of Surgery with a compact unit on one floor, including sixteen operating rooms, surgical laboratories, offices and consulting rooms.

* * *

A father and five sons practicing together in a group is unique and worth recognition. Dr. William F. C. Heise of Winona, head of the Heise Clinic of that city, has four sons, Herbert, William, Carl, and Paul already associated with him, and his fifth son, Phillip, will join the group November 1. Dr. William F. C. Heise has been practicing in Winona since 1898, having graduated from Rush Medical College in 1896. Dr. Herbert graduated from Jefferson Medical College and has specialized in surgery; Dr. William graduated from Northwestern and is a pediatrician; Dr. Phillip, now a resident at St. Barnabas Hospital in Minneapolis, has specialized in obstetrics and gynecology; Dr. Paul, a graduate of Marquette University, has specialized in surgery and pathology, and Dr. Carl, a graduate of Jefferson Medical College has chosen eye, ear, nose and throat for his specialty. The new clinic building which is completely equipped for the best in medical service, was officially opened July 7, 1947.

DR. MELLBY HONORED

In recognition of forty years of service to the community of Thief River Falls, the citizens of that city celebrated Doctor Mellby Day on June 30, 1947. The celebration consisted of a banquet at the Trinity Lutheran Church followed by a community program at the Lincoln Hight School Auditorium, which was concluded by an address by President James L. Morrell of the University of Minnesota.

Dr. O. F. Mellby came to Thief River Falls in 1907 when the estimated population of the town was about 5,000. The son of the Reverend Ole Andreas Mellby of Norway who came to Le Sueur in 1872, Dr. Mellby attended St. Olaf Academy in Northfield, St. Olaf College, and the Minneapolis College of Physicians and Surgeons. After a year's internship at Ancker Hospital and five years of practice at Willmar and Warren, Minnesota, he began practice at his present location in August, 1907. Those were the days of long trips by horse and buggy, and Dr. Mellby had his share of that strenuous life.

Dr. Mellby has been active in civic, social and religious affairs, having served on the local school and park boards. For nine years he served on the Minnesota State Board of Health. He was a trustee of the Trinity Lutheran Church a number of years.

To those who know Dr. Mellby, this recognition of forty years of service is justly deserved.

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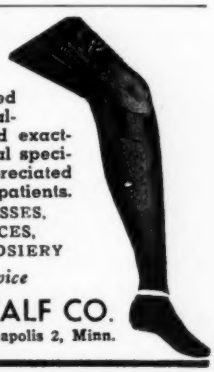

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